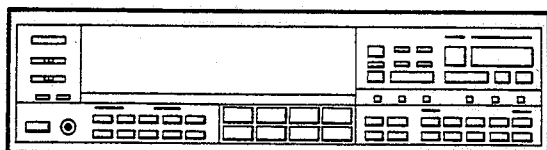
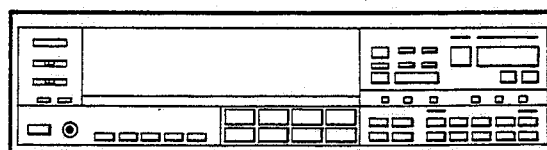


Operating Instructions

AUDIO/VIDEO STEREO RECEIVER VSX-5000 VSX-4000



VSX-5000



VSX-4000

Thank you for buying this Pioneer product.

Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

This unit is provided with a demonstration mode function; for details, see page 2.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

IMPORTANT NOTICE

[For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

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PIONEER®

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS — The operating instructions should be retained for future reference.

HEED WARNING — All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

WATER AND MOISTURE — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION — The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING — The appliance should not be mounted to a wall or ceiling.

VENTILATION — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION — If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING — The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzene, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES — An outdoor antenna should be located away from power lines.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE — The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; or the enclosure damaged.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.

In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

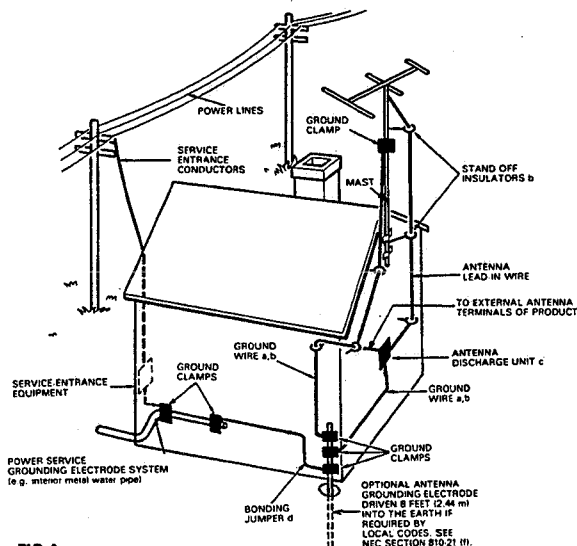


FIG. A

- a) Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel, bronze wire, or larger as ground wire.
- b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
- c) Mount antenna discharge unit as closely as possible to where lead-in enters house.
- d) Use jumper wire not smaller than No. 6 AWG (13.3 mm²) copper or equivalent when separate antenna-grounding electrode is used.

IMPORTANT



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

DEMONSTRATION MODE

This unit is provided with a demonstration mode. When this function is used, the various indicator functions are shown on the display panel.

To start the demonstration mode:

1. Set to the STAND-BY (Power OFF) condition.
 2. While holding the TV ANT switch pressed, press the POWER switch.
- After all the display indicators light, operation begins, and the controls will be set as follows:

VOLUME → MIN

BALANCE → CENTER
SURROUND VOLUME (VSX-5000 only) → MID
TONE → FLAT (normal)

This mode will continue until any switch other than the MASTER VOLUME (VOLUME) switch is pressed. By setting the desired volume, this mode can be maintained. Also, if you press any switch other than the MASTER VOLUME (volume), the unit will stop.

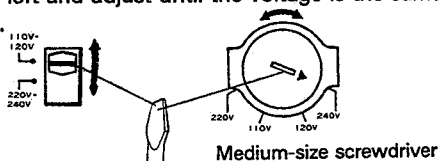
BEFORE OPERATING, ADJUST THE POSITION OF THESE SWITCHES

TWO VOLTAGE SELECTOR SWITCHES

Only multi-voltage models are provided with these switches. U.S., Canadian, European, U.K., and Australian models are not provided with these switches.

The line voltage selector switches are on the rear panel. Before your model is shipped from the factory, these switches are set to the power requirements of the destination. Check they are set properly before plugging the power cord into the household wall socket. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switches as follows.

1. Use a medium-size screwdriver.
2. First, insert a screwdriver in the groove of the voltage selector at the right, and adjust so that the tip of the groove points to the voltage value of your area.
3. Next, insert a screwdriver in the groove of the voltage selector at the left and adjust until the voltage is the same as at the right.



NOTE:

Both switches must be in the same switch setting.

CHANNEL STEP/FM DE-EMPHASIS SWITCH

The unit has been factory preset to the channel allocation and de-emphasis value for the area in which it is to be sold. If these values are set incorrectly, the frequency display may stop at the wrong frequency, or sound may be distorted, resulting in an inability to reproduce reception signals at their proper sound quality. For this reason, be sure to confirm that the values are set correctly before first using the unit.

[100 kHz/10 kHz/75 μ s] position:

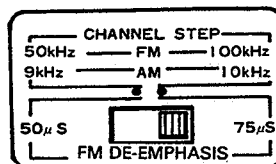
Set to this position for areas with FM reception step of 100 kHz, AM 10 kHz, and de-emphasis 75 μ s.

[50 kHz/9 kHz/50 μ s] position:

Set to this position, for areas with FM reception step of 50 kHz, AM 9 kHz, and de-emphasis of 50 μ s.

NOTE:

When unsure about the channel allocation and de-emphasis values for your area, consult your dealer for correct information.



FEATURES

The VSX-5000/4000 is an audio-visual component combining the functions of receiver, wireless remote control, audio-video selector, surround processor and video enhancer. It will play a central role in your enjoyment of audio-visual media.

• SURROUND FUNCTION

VSX-5000:

Three surround modes (Dolby surround, Stadium, Studio) can be selected.

VSX-4000:

Provided with surround function utilizing the speaker matrix.

• ENHANCER, SPLIT-SCREEN FUNCTION

The built-in detail-type enhancer is beneficial when making copies of VCR tapes. Also, by using the split-screen function, you can simultaneously view the enhanced and original (non-enhanced) images. In this way you can select the optimum settings for enhancing the image.

• CABLE FM FUNCTION

In areas where cable FM (stereo) broadcasts are transmitted simultaneously with CATV broadcasts, this function allows you to enjoy the CATV broadcast in living stereo. In addition, by using the unit's simulcast function, stereo recording can be performed with Hi-Fi VCR units.

• VIDEO SIGNAL SELECTOR (Simulcast function)

Allows free combination of various audio and video sources during playback and over-dubbing, enabling you to produce your own original background videos.

• TWO-WAY VCR COPYING AND MONITORING

VCR 1—VCR 2: Copying of video cassette tapes can be performed in either direction.

VDP/VCR 3—VCR 1, VCR 2: Allows simultaneous production of two copies from a single video cassette tape or video disc.

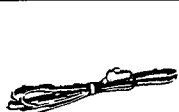
• ACOUSTIC MEMORY FUNCTION

Three types (A, B, C) of tone control setting can be preset. The setting of loudness and flat tone response functions can also be selected quickly.

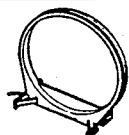
• STATION CALL-LETTER DISPLAY FUNCTION

The call-letters of broadcast stations can be preset (up to four characters). The display can be set to show either the broadcasting frequency or the call letters (for example WBAC). The four-character display can alternately be set to display your name, or the type of material broadcast (for example, JAZZ, NEWS, etc.).

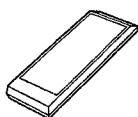
CHECKING ACCESSORY ITEMS



FM T-type Antenna



AM Loop Antenna



Remote control unit



Dry cell battery x 2

SURROUND SYSTEM

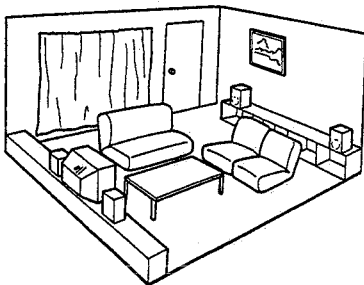
What is surround sound?

With ordinary stereo, sound normally comes only from speakers in front of the listener. In a concert hall or theater though, sound reflected from the walls and ceiling reaches the listener from all directions. This is what accounts for the feeling of ambience or spaciousness of a live performance. Surround sound works to reproduce these effects to provide fuller, more "live" sound.

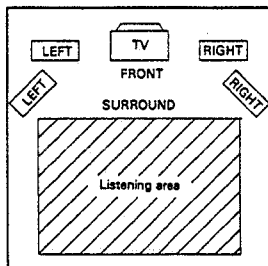
Speaker System Placement Examples

The sound effects obtained in a surround system depend on speaker placement. Experiment with various arrangements to find the one most suited to your tastes. Placing the speakers so that they are slightly higher than ear-level contributes to sound quality.

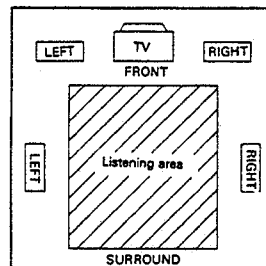
Constructing a Surround System



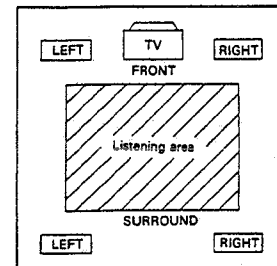
Example A:



Example B:



Example C:



THREE-WAY SURROUND PROCESSOR (VSX-5000 only)

DOLBY SURROUND

This is the optimum setting for viewing recent movies, especially those featuring the DOLBY STEREO trademark. Normal stereo sound is reproduced from the front speakers, while the rear speakers reproduce the surround signal. This can also be used when watching television programs, video cassette tapes and video discs. It is also effective when playing back recorded video tapes of television programs.

NOTE:

With television broadcasts, this function is effectively only with video tapes recorded in stereo.

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VSX-5000:

[Example A: Suitable for STUDIO use]

Sound appears to come from directly in front of listener. Good for listening to music recordings.

[Example B: Suitable for STADIUM]

Offers most varied effects; good for watching sports programs or listening to live recordings.

[Example C: Suitable for Dolby surround]

Good sound dispersion; recommended for movies, etc.

EFFECT CHART

Example	A	B	C
SURROUND			
STUDIO	○	○	○
STADIUM	X	○	○
DOLBY	X	○	⊙

VSX-4000:

For a music tape, the optimum system layout is as shown in example A; for a tape of a sporting program, the optimum layout is as shown in example B; and for a movie tape, the optimum layout is as shown in example C.

STADIUM

When watching live broadcasts of sporting events, this function allows you to enjoy play-by-play action with the effect of surround sound, just as if you were present in the stadium.

STUDIO

Effective when watching movies or for listening to music concert sources. In addition to the normal stereo reproduction from the front, the rear surround speakers add the ambience of a theater or concert hall's acoustic resonance. The effect is as though you had prime orchestra box seating.

THREE-WAY SOUND EFFECTS FUNCTION

VCR NOISE FILTER

When playing back a monaural VCR, there is a tendency for audible high-frequency hiss noise to be produced.

When playing back video tapes, if the audio channels contain noticeable high-frequency tape hiss noise, pressing this switch will improve the sound.

DYNAMIC EXPANDER (VSX-5000 only)

This function expands the dynamic range of playback sounds, thus giving life and impressive force to music sources, and resulting in a sense of ambience and presence. In particular, when used with rock or jazz music playback, the music achieves a breadth with naturalness of vocal reproduction and clearly contoured instrumental sounds, thus producing a feeling of live presence.

SIMULATED STEREO

This function transforms monaural signals into simulated stereo sound. Use it when you wish to experience the sense of stereo presence when listening to AM broadcasts, or VCR and other monaural signal sources.

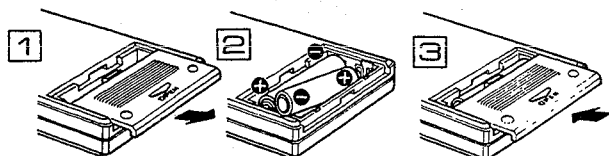
NOTE:

The simulated stereo function can also be used with stereo sound sources, but it will result in an effect somewhat different from the normal stereo sound.

STEREO WIDE (VSX-4000 only)

Used with stereo sources, this function results in an even wider breadth and stereo presence.

INSERTING THE BATTERIES INTO THE REMOTE CONTROL UNIT



- [1] Remove the cover of the battery compartment on the reverse side of the remote control unit. This can easily be done by pressing down on the cover with your thumb and pulling it in the direction of the arrow.
- [2] Take out the two size "AAA" [IEC RO3 (UM-4)] dry cell batteries supplied and load them into the battery compartment, taking care to follow the markings on the compartment.
- [3] Replace the cover of the battery compartment.

Cautions for handling dry cell batteries

Misusing dry cell batteries can result in electrolyte leakage or explosions. Bear in mind the following points for getting the most out of your batteries.

- When loading the batteries into the battery compartment, make sure the plus $\oplus$ and minus $\ominus$ polarities correspond to the markings on the compartment.
- Even though they may be the same shape, batteries come with different voltage ratings. Do not mix or use different types of batteries together. Use only the same kind of batteries.
- Do not mix up new batteries and used batteries but replace all the batteries at the same time.
- Do not heat, disassemble or shortcircuit batteries or throw them into a fire.
- Some batteries are rechargeable while others are not. Observe the cautionary notes on the batteries and use them properly.

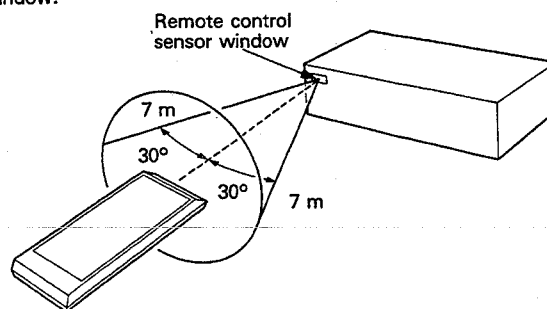
Range of remote control

When the remote control unit is pointed at the remote control sensor window on the receiver and any of its keys is pressed, the unit and other components can be operated by remote control.

Distance: Within a range of about 7 meters from the unit's remote control sensor window

Angle: Within approx. 30 degrees from the center of the unit's remote control sensor window

Remote control will not be possible if there is an obstacle between the remote control unit itself and the unit's remote control sensor window.



Bringing the remote control unit closer to the sensor window increases the angle that enables remote control.

REAR PANEL FACILITIES

To simplify the explanation, the illustration shows the facilities provided on the VSX-5000 and VSX-4000.

FM/AM ANTENNA terminals

Use these antenna terminals for reception of normal FM and AM broadcasts.

- For details regarding antenna connection, see the section "Hints for Better Reception" on page 28.

ANTENNA FM-B (CATV) terminal

Use this antenna terminal for reception of CATV FM broadcasts. Connect a 75-ohm coaxial cable to this terminal.

INPUT jacks

PHONO ... Connect to the output cables from a turntable.
CD ... Connect to the output jacks of a compact disc player.

TAPE jacks

The REC/PLAY jack on the receiver consists of two sets, TAPE 1 and TAPE 2. It is possible to connect two tape decks to the receiver and do simultaneous recording or tape to tape recording. When connecting only one tape to the receiver, connect it to the TAPE 1 jack.

Connecting for Recording

The tape recording jack (TAPE REC) on the tape deck should be connected to the REC side of the TAPE jack on the receiver with a pin plug connecting cord.

Connecting for Playback

Connect the TAPE PLAY jack on the tape deck to the PLAY side of the TAPE jack on the receiver with a pin plug connecting cord.

GND terminal

Connect the ground lead of a turntable to this terminal.

VIDEO ADAPTOR jacks (VSX-5000 only)

Use to connect a video adaptor component such as a video enhancer or color corrector.

VDP/VCR 3 jacks

[VIDEO IN]

When watching the video image from a LaserVision player (VDP) or a VCR used for playback, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When playing back the audio channel from a LaserVision player (VDP) or a VCR for playback, connect its AUDIO OUTPUT jacks here.

VCR 2 jacks

[VIDEO OUT]

When copying program materials from the video component connected to the VCR 1 or VDP/VCR 3 jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program materials from the video component connected to the VCR 1 or VDP/VCR 3 jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

SURROUND POWER AMP IN jacks (VSX-5000 only)

When a separate pre-amplifier is connected and VSX-5000 is used as power amplifier for surround speakers, connect the pre-amplifier to these jacks.

(Standard input 150 mV, Impedance 50 k Ω)

SURROUND PRE-AMP OUT jacks (VSX-5000 only)

When a power amplifier is used to connect surround speakers, connect the power amplifier to these jacks.

(Standard output 150 mV, Impedance 470 Ω)

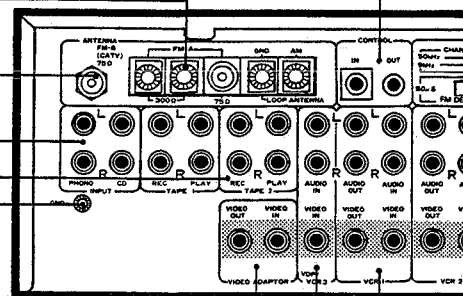
SURROUND BALANCE control (VSX-5000 only)

Use to adjust the surround effect from the surround speakers. Normally leave in the center position. When inputting a monaural signal, adjust so that the surround output is minimum.

REMOTE CONTROL IN/OUT jacks

IN: Connect this jack to other Pioneer components (main unit or remote control unit) when using those components to control this unit.

OUT: Connect this jack to other Pioneer components when using this unit's remote control to control the other components.



VCR 1 jacks

[VIDEO OUT]

When copying program materials from the video component connected to the VCR 2 or VDP/VCR 3 jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program materials from the video component connected to the VCR 2 or VDP/VCR 3 jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

[VIDEO IN]

When monitoring the video image from a VCR used for playing, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring back the audio channel from a VCR used for playing, connect its AUDIO OUTPUT jacks here.

[VIDEO IN]

When monitoring the video image from a VCR used for copying, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring the audio channel from a VCR used for copying, connect its AUDIO OUTPUT jacks here.

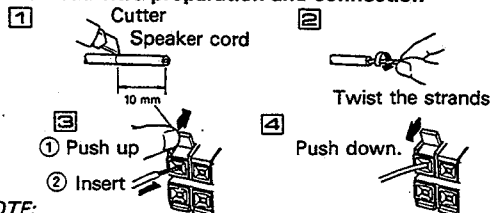
L + R output jacks (VSX-5000 only)

These are the Dolby surround center channel signal output jacks. They can also be used as a 3D system MONO output. (Standard output 1 V, output impedance 4.7 K Ω .)

SPEAKERS terminals

- A: Connect to a first set of speakers (or the front speakers in a surround system).
B: Connect to a second set of speakers (or the surround speakers in a surround system).
• The words in parenthesis apply to when the SURROUND ON/OFF selector switch is ON.

Speaker lead wire preparation and connection



NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

AC OUTLETS

(SWITCHED) TOTAL 300 W MAX

Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 300 W.

(UNSWITCHED) 200 W MAX

Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 200 W.

The equipment should be disconnected by removing the main plug from the wall socket when not in regular use, e.g. when on vacation.

NOTE:

Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLETS in order to avoid overheating or fire risk.

This can cause the receiver to malfunction.

SPEAKER IMPEDANCE selector switch

Set this switch to the nominal impedance of your speakers. When using surround speakers, or when two sets of speakers are used together, each set of speakers should have a nominal impedance of 8–16 ohms. When connecting surround speakers, always set to position ②.

When SURROUND ON/OFF selector switch is ON position:

Normal speaker impedance	When using Surround Speaker
From 4 to less than 8 Ω	Position ②
From 8 to less than 16 Ω	
16 Ω	

When SURROUND ON/OFF selector switch is OFF position:

Normal speaker impedance	One set of speakers (A or B) alone	Both sets of speakers together (A + B)
From 4 to less than 8 Ω	Position ②	Position ②
From 8 to less than 16 Ω	Position ①	
16 Ω	Position ①	Position ①

If speakers are used in ways other than those shown above, the speakers may not deliver proper output, or unnecessary heating may be caused.

SURROUND ON/OFF selector switch

When surround speakers are connected to the SPEAKER B terminals, set to the ON position; in all other cases, leave in the OFF position. When set to the ON position, the SURROUND mode can be selected with the unit's main controls or with the remote control unit.

Before operating this switch, read the explanation on the SPEAKER IMPEDANCE selector switch.

SURROUND LEVEL selector switch (VSX-4000 only)

By selecting one of the three positions (L: Low, M: Mid, H: High), the sound volume from the surround speakers can be changed.

NOTE:

A "normal TV set" as noted above is one for which RF connections alone are possible.

FRONT POWER AMP IN jacks (VSX-5000 only)

When a separate pre-amplifier is connected and the VSX-5000 is used as power amplifier, connect the pre-amplifier to these jacks. (Standard input 1 V, input impedance 50 k Ω)

FRONT PRE-AMP OUT jacks (VSX-5000 only)

When a separate power amplifier is used to connect the front speakers, connect the power amplifier to these jacks. (Standard output 1 V, output impedance 470 Ω)

VIDEO OUT jacks

Use to connect a TV set for watching program materials from the VCR or VDP connected to this unit.

[TO MONITOR TV jack]

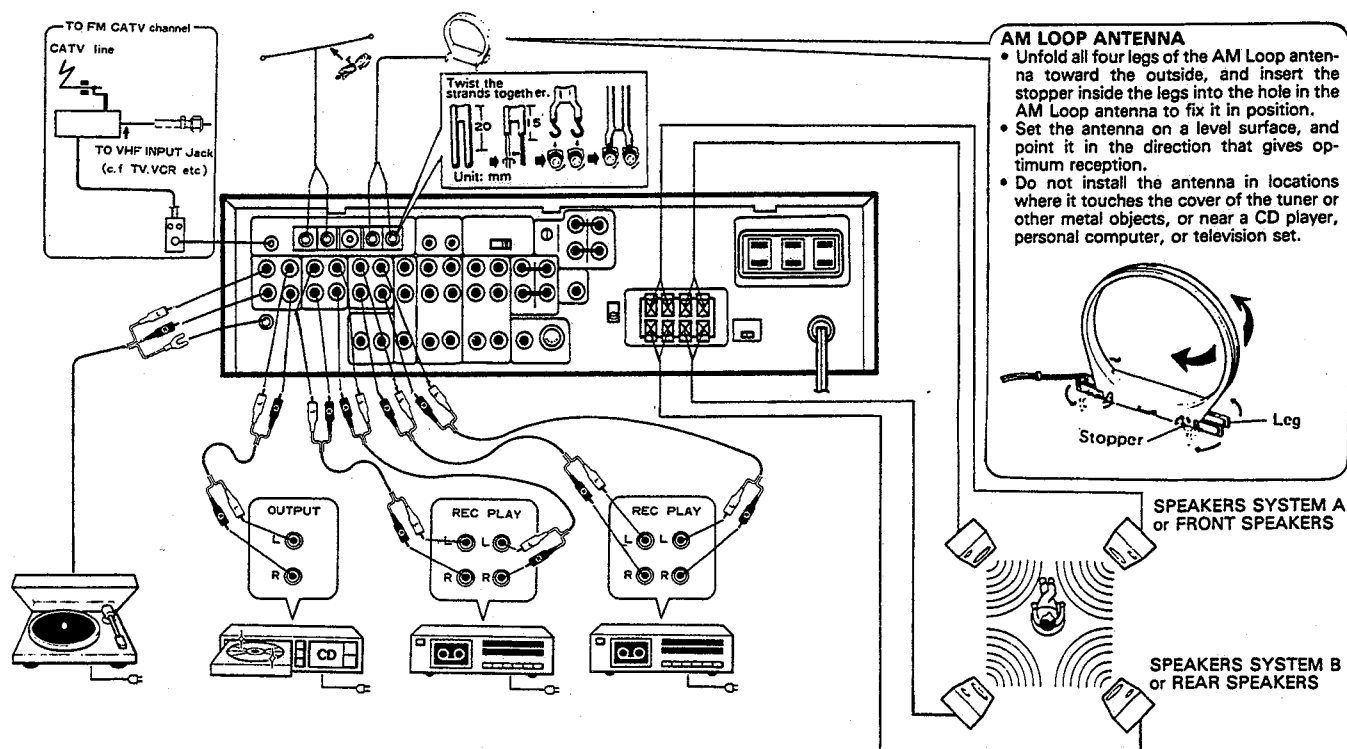
Connect to a monitor TV or to a TV set with video input terminals.

[TO RF MODULATOR jack]

Use to connect a normal TV set. When performing connections, the RF MODULATOR JA-RF5 (sold separately) is required. By connecting an RF modulator, video signals can be converted to VHF signals (U.S. channel 3 or 4), thus allowing this unit to be used to view the selected source on a normal television set.

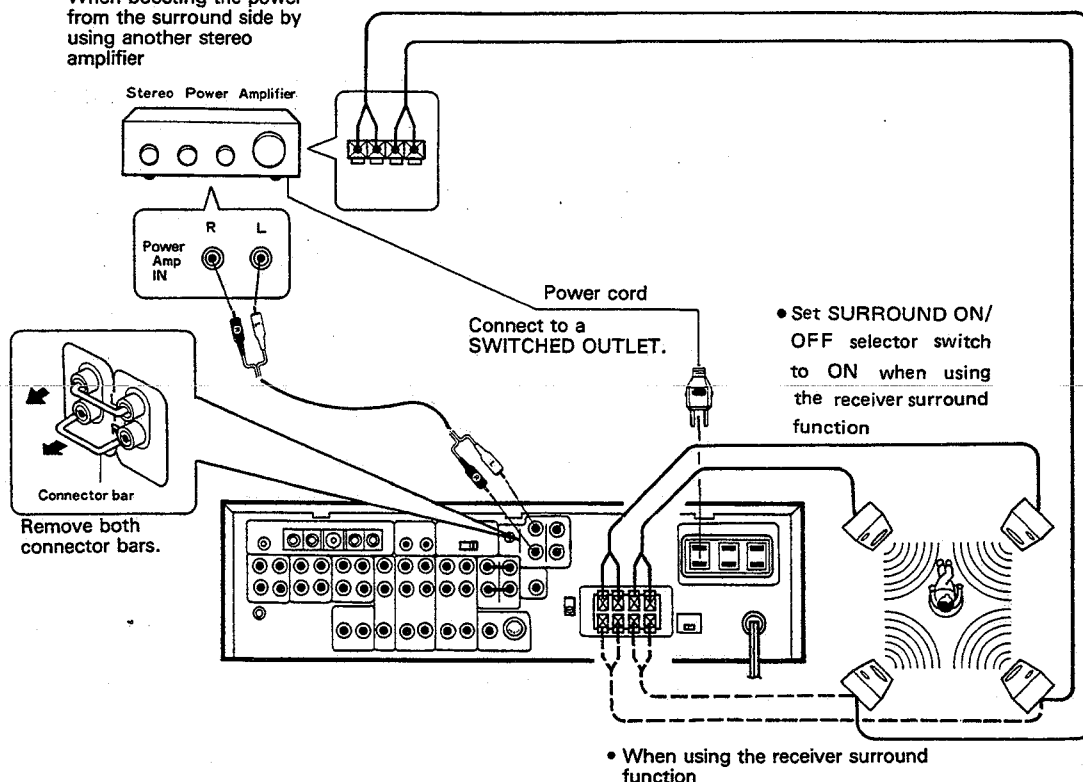
AUDIO SYSTEM CONNECTIONS

(The illustrations on pages 8 to 11 show the rear of the VSX-5000.)



AUDIO ADAPTOR CONNECTIONS (Surround) (VSX-5000 only)

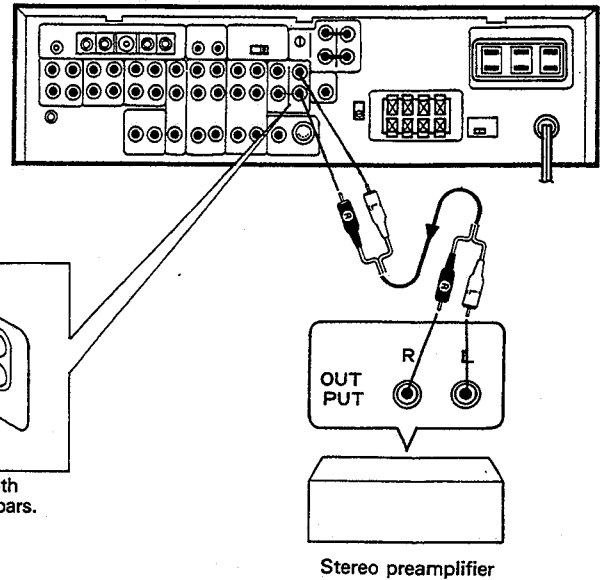
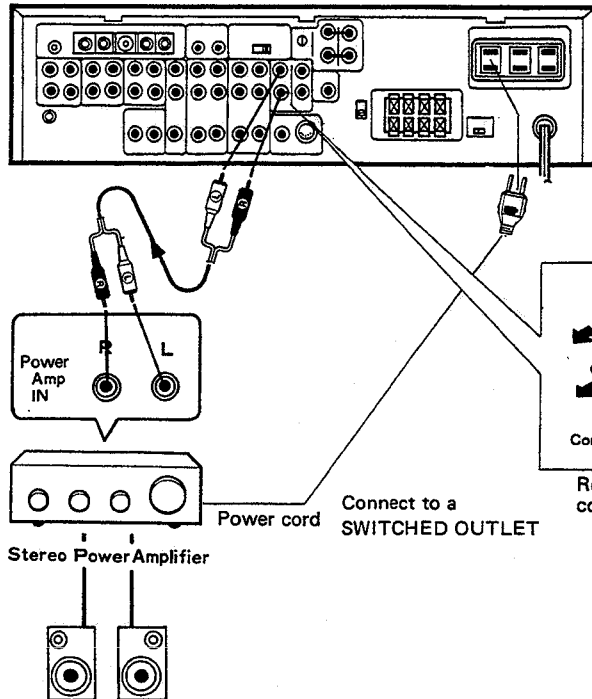
- When boosting the power from the surround side by using another stereo amplifier



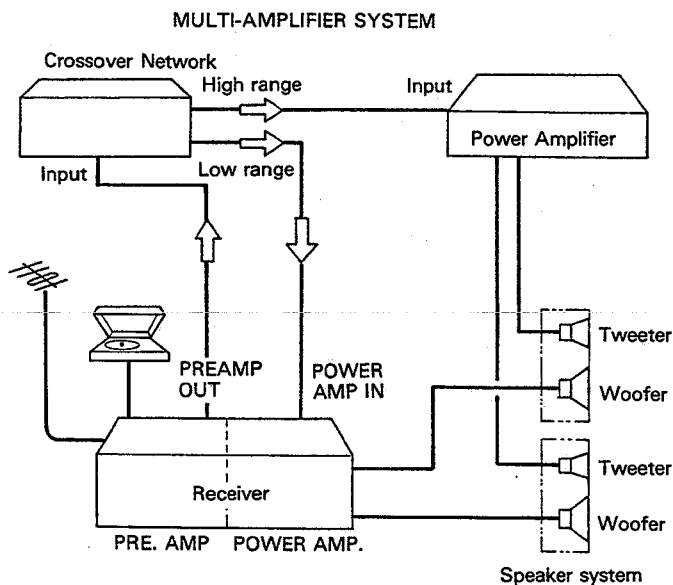
AUDIO ADAPTOR CONNECTIONS (Front) (VSX-5000 only)

When using the preamplifier of the receiver and using a separate stereo power amplifier to increase power

When using the power amplifier of the receiver and using a separate stereo preamplifier.

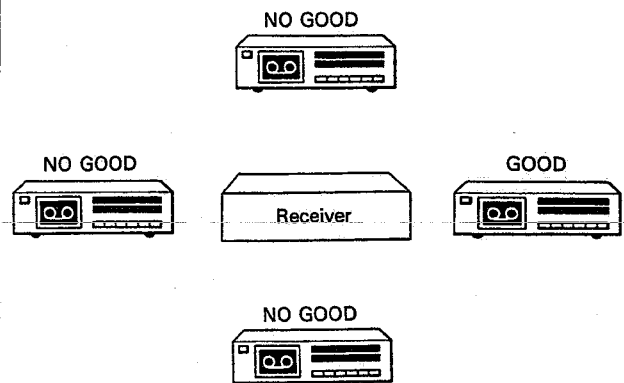


[Application example]

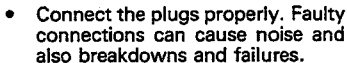


Precaution regarding installation position of cassette tape deck

If the cassette tape deck is installed in the position shown in the drawing below (NO GOOD positions), hum may occur during playback.

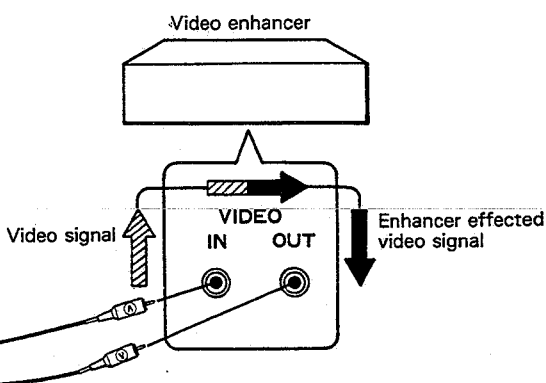


100% 99% 98% 97% 96% 95% 94% 93% 92% 91% 90% 89% 88% 87% 86% 85% 84% 83% 82% 81% 80% 79% 78% 77% 76% 75% 74% 73% 72% 71% 70% 69% 68% 67% 66% 65% 64% 63% 62% 61% 60% 59% 58% 57% 56% 55% 54% 53% 52% 51% 50% 49% 48% 47% 46% 45% 44% 43% 42% 41% 40% 39% 38% 37% 36% 35% 34% 33% 32% 31% 30% 29% 28% 27% 26% 25% 24% 23% 22% 21% 20% 19% 18% 17% 16% 15% 14% 13% 12% 11% 10% 9% 8% 7% 6% 5% 4% 3% 2% 1% 0%



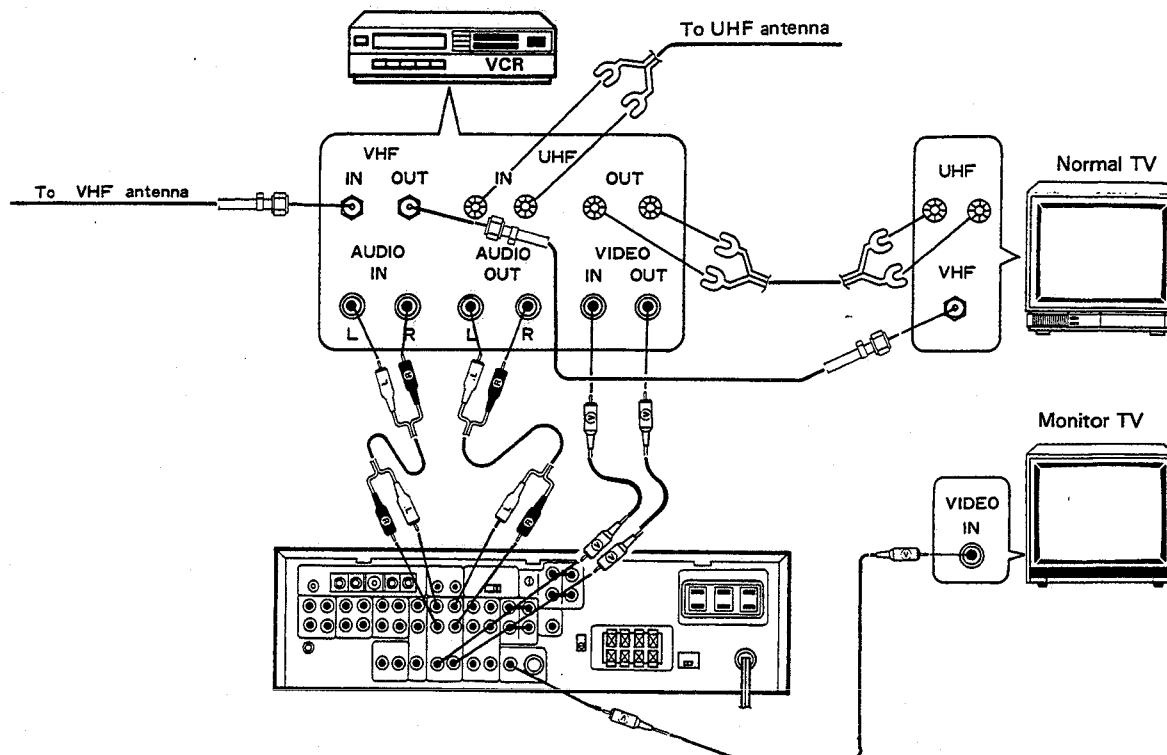
1000

- **Example:**
When using video enhancer,

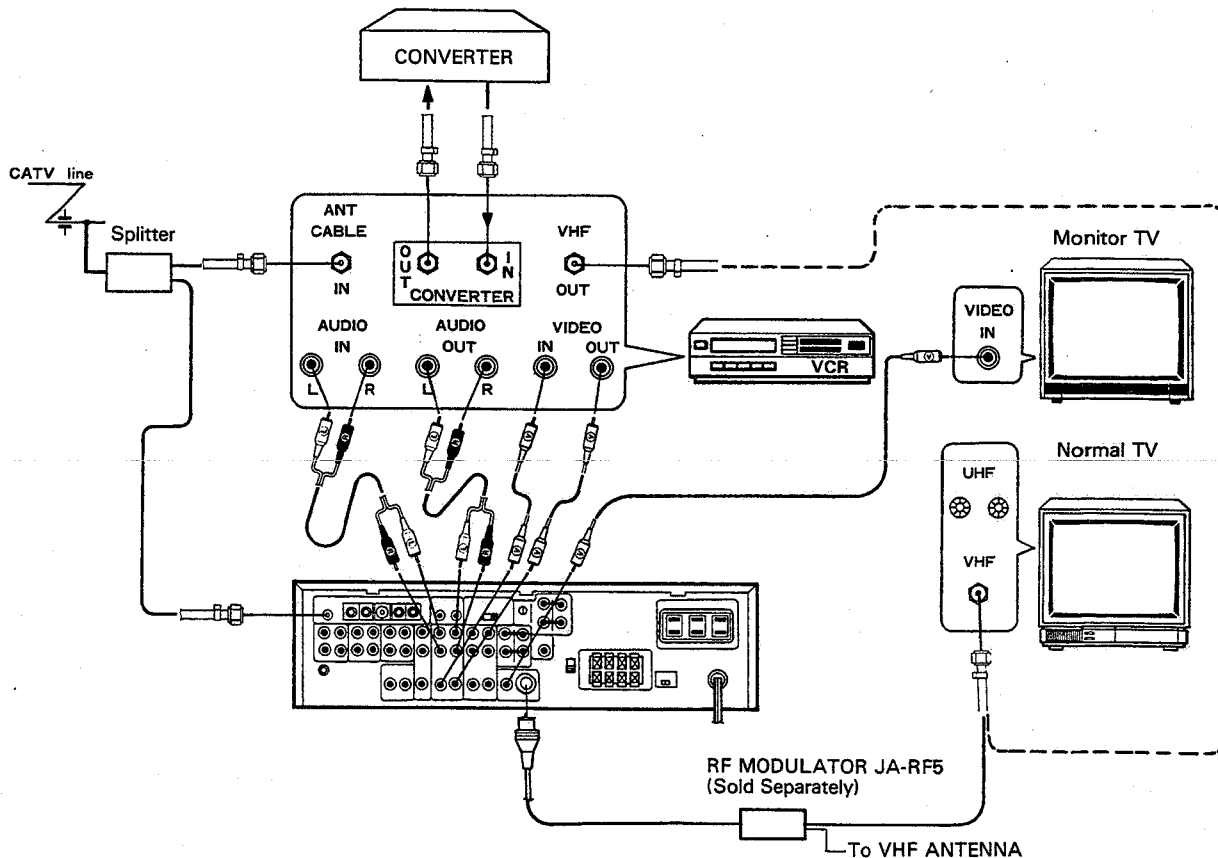


ONE VCR CONNECTION

VCR + Normal TV or Monitor TV



VCR for CATV + Normal TV (or Monitor TV)

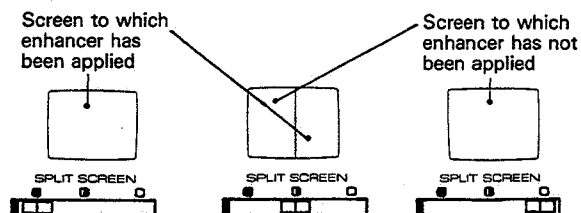


FRONT PANEL FACILITIES

[When the switch marked * is pressed, characters will appear on the display panel.]

SPLIT SCREEN control

This control allows you to freely control the area of enhanced picture (on right side of screen) and original picture (non-enhanced, on left side of screen) by means of a vertical line dividing the screen into two sections.



NOTE:

This line is not output from the VCR (VCR 1 and VCR 2) VIDEO OUT jacks. As a result, the split screen image is not recorded; the recorded image will be entirely that produced by the enhancer function.

ENHANCER control

When performing tape copying with a VCR, some deterioration in image quality occurs normally. This control allows compensation for this deterioration in image quality by emphasizing image detail.

NOTE:

The ENHANCER control functions to suppress image deterioration, but will not improve image quality beyond its original state.

SPEAKERS switches

These switches are used to select the speakers used.

- A: To use the speakers connected to the SPEAKERS A terminals.
 - B: To use the speakers connected to the SPEAKERS B terminals.
- When perform surround reproduction, press both of switches A and B.

POWER STAND-BY/ON switch

When this switch is pressed, power is supplied to the unit. Press the switch again to turn power off.

[Timer ON/OFF possible]

When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:

When the power is turned ON, muting will be applied to prevent sound from being output while the volume level indicator is flashing (about 5 seconds).

SURROUND mode switches (VSX-5000 only)*

Set in accordance with the music source used when performing surround playback.

OFF: Press when not performing surround playback.

STUDIO: Optimum when watching movie or concert programs.

STADIUM: Optimum when watching live sports programs.

☒ SURROUND: Optimum when watching movie programs bearing the DOLBY STEREO trademark.

NOTE:

- When the rear panel SURROUND ON/OFF selector switch is in the OFF position, no surround effect will be produced even if these switches are pressed.

SIMULATED STEREO switch *

Press to produce a simulated stereo effect when listening to monaural sources (for example normal AM or TV broadcasts). "S/STEREO" appears on the display panel.

NOTE:

- ON the VSX-5000, this effect is not produced through the surround speakers.

DYNAMIC EXPANDER switch * (VSX-5000 only)

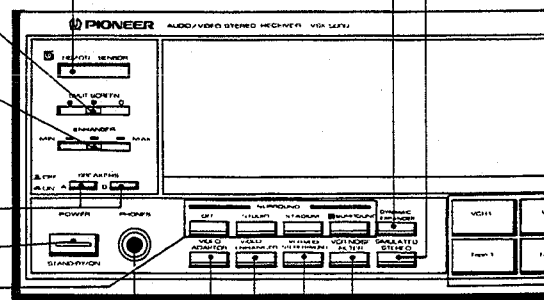
Press to add impressive dynamicity to rock or jazz music sources.

NOTE:

This effect is not produced through the surround speakers.

Remote signal sensor

VSX-5000



PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

VIDEO ADAPTOR switch (VSX-5000 only) *

Press when using the video component connected to the VIDEO ADAPTOR jacks.

VIDEO ENHANCER switch *

Press when performing video copying with added video enhancer effects. When the switch is pressed, the monitored video image will be the split screen picture.

VCR MODE STEREO/MONO selector switch

MONO: All playback, including stereo signals, are produced in monaural.

When the MODE MONO indicator lights, the unit is set to the MONO mode.

NOTE:

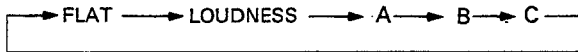
This switch can be used when one of the video system function switches is selected. In addition, this switch can be preset for either of VCR 1, VCR 2, or VDP/VCR 3. When any other audio function switch is pressed, the mode mono is automatically canceled.

ACOUSTIC MEMORY switch

Use to set sound quality to three different settings (A, B, or C). This function allows you to preset and quickly recall frequently used tone settings.

ACOUSTIC SELECT switch *

Each time this switch is pressed, acoustic effects are produced in the following order:

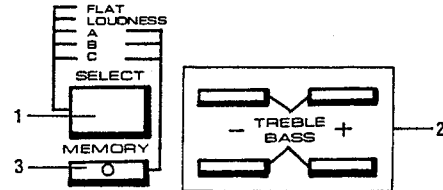


FLAT: For flat (normal) frequency response.

LOUDNESS: Emphasizes the low- and high-frequency ranges. Produces a fuller sense of sound particularly when listening at low volumes.

A, B or C: Produces the sound tone preset with the ACOUSTIC MEMORY switch.

Presetting the Acoustic Memory



1. Use the ACOUSTIC SELECT switch to select the desired memory position (A, B, or C).
2. Use the BASS/TREBLE controls to adjust the sound to the desired tone quality.
3. Press the ACOUSTIC MEMORY switch.

- In this way, the desired tone will be preset in one of the three acoustic memory positions. To preset two other desired tone settings, perform the same operations.
- To recall the memorized tone settings, press the ACOUSTIC SELECT switch to select the desired memory position. In this way, three different tone settings can be preset and recalled in the three positions of the acoustic memory.

BASS/TREBLE controls

Use these controls to adjust the tone quality.

When both sides ($\pm$) of the BASS control are pressed simultaneously, the bass response will be set to the flat (normal) condition; likewise, when both sides ($\pm$) of the TREBLE control are pressed simultaneously, the treble response will be set to the flat (normal) condition.

MASTER VOLUME switch

Use to simultaneously adjust the sound volume from front and surround speakers. To increase sound volume, press the "+" side. To reduce sound volume, press the "-" side.

- The sound volume level is memorized even when the power is turned OFF. When the power is turned ON again, the volume will automatically return to the previously set level.

MUTE switch *

Press to temporarily cut off the sound volume. When pressed again, the sound will return to its previous level.

VIDEO SIGNAL SELECTOR switch

When recording simulcast programs, the recorded image can be selected from among VCR 1, VCR 2, and VDP/VCR 3.

Audio/video function switches*

VCR 1: Press when performing playback on a VCR unit.

VCR 2: Press when performing playback on a second VCR unit.

VDP/VCR 3: Press when performing playback on a video disc player (VDP) or third VCR.

TAPE 1: Press when performing playback on a tape deck and when monitoring recording.

TAPE 2: Press when performing playback on a second tape deck and when monitoring recording.

This receiver has two sets of tape terminals, allowing you to connect two tape decks for both recording and playback.

NOTE:

If TAPE 1 and TAPE 2 are pressed simultaneously, TAPE 2 alone will function.

CD: Press when playing compact discs on a CD player.

PHONO: Press when playing records on a turntable.

VCR NOISE FILTER switch *

If tape hiss noise is noticeable when performing playback of video cassette tapes, press this switch to reduce the noise. By pressing this switch, "N FILTER" will appear on the display panel.

NOTE:

- This switch can be used when one of the video system function switches is selected. In addition, this switch can be preset for either of VCR 1, VCR 2, or VDP/VCR 3. When any other audio function switch is pressed, the noise filter is automatically canceled.
- The effectiveness in reducing high-frequency hiss noise varies depending on the type of tape used, the recording level, and other conditions.

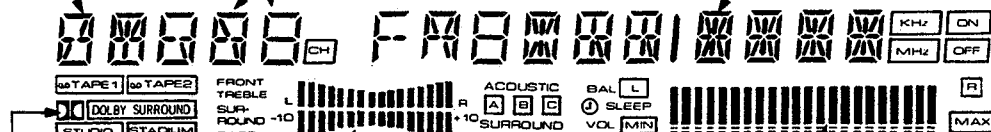
FRONT PANEL FACILITIES

The indicators shown below light in the following cases.

Indicates the SOURCE selected by the audio/video function switch.

Indicates the channel of the STATION CALL switch.

Indicates SURROUND MODE, ON-OFF of ENHANCER, ON-OFF of S/STEREO (SIMULATED STEREO), frequency of broadcast station, call letter indication, LOUDNESS, FLAT, N FILTER (NOISE FILTER), S/WIDE (STEREO WIDE), S/S + S/W (SIMULATED STEREO + STEREO WIDE) etc.



The TAPE 1, TAPE 2, and SURROUND modes are displayed in red letters.

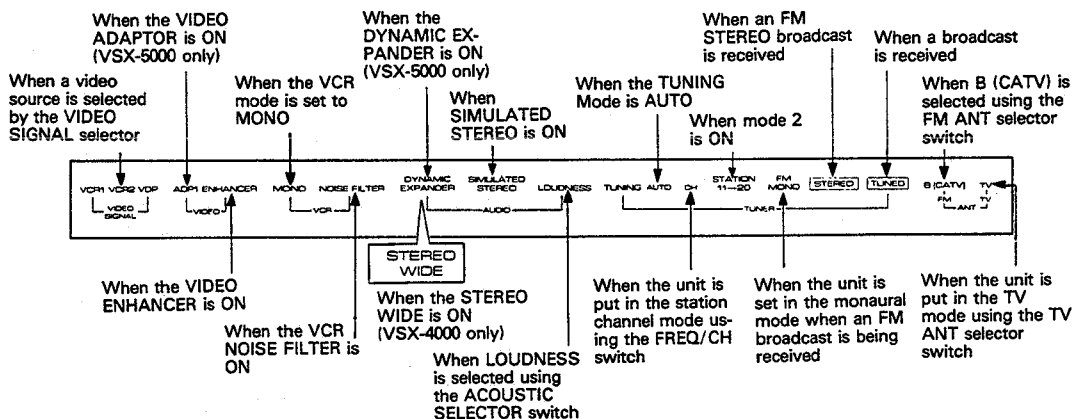
Indicates which position A, B and C, of the ACOUSTIC MEMORY is selected.

Indicates the volume, balance, and SLEEP time. When the unit is switched ON, the sound level indicated will flash, and muting will be applied for several seconds.

Normally, the left and right output levels are displayed.

Also, when you adjust the bass and treble, the corresponding indications will be displayed.

VSX-5000



AUTO/MANUAL TUNING selector switch *

This switch is used to select the tuning mode. The AUTO tuning mode has been selected when the TUNING AUTO indicator lights.

AUTO tuning

When the - or + TUNING switch is pressed, the receiver automatically scans the broadcast station frequencies. When a broadcast is detected, the scanning stops at that frequency.

NOTE:

By pressing the TUNING switch (- or +) while scanning is taking place, scanning will stop.

MANUAL tuning

This is the usual tuning method. Each time the - or + TUNING switch is pressed, the reception frequency is changed by one tuning step. When pressed continuously, the receiver scans the broadcast frequencies continuously.

DIRECT ACCESS TUNING switch

When this switch is pressed, the STATION CALL switches function as ten-key number switches for direct input of the desired reception frequency.

BAND selector switches *

FM: Press for FM reception.
AM: Press for AM reception.

MEMORY switch *

When the unit is in the frequency display mode, pressing this switch will result in the memorization of the current broadcast band, reception frequency, antenna A/B mode, and FM AUTO/MONO mode.

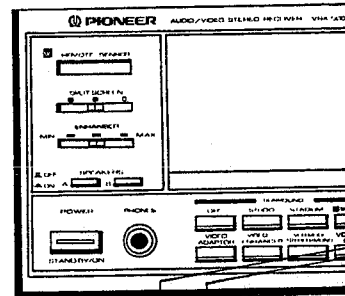
When the unit is in the station call-letter mode, the station name (call letters, etc.) will be memorized.

STATION (1-10/11-20) selector switch

This switch is used to set the STATION CALL switches to either Mode 1 (1-10) or Mode 2 (11-20). Mode 2 (11-20) is selected when the switch is pressed so that the STATION (11-20) indicator is lighted.

NOTE:

Changing the position of this switch has no effect on receiver performance itself.



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FRONT PANEL FACILITIES

FREQ/CH (Frequency/Channel) switch

This switch is used to select either the station frequency mode or station channel mode for the broadcasting station shown on the display panel. When "CH" is displayed, the unit is in the channel mode.

TUNING switch

Use to perform tuning in accordance with the setting of the FREQ/CH switch.

[Station Channel Mode] (for preset scanning)

- + : Performs tuning of the stations preset in the STATION CALL switches in the ascending numerical order of the switches.
- : Performs tuning in the same way, only in descending numerical order of the STATION CALL switches.

[Station Frequency Mode] (for normal tuning)

- + : Performs tuning from the currently displayed station frequency in ascending frequency order.
- : Performs tuning in order of descending frequencies.

SURROUND VOLUME switch (VSX-5000 only)

This switch is used to preset the sound level difference between front and surround speakers. In this way, after presetting the difference, the overall volume of front and surround speakers can be changed by using the MASTER VOLUME switch, while still maintaining the sound volume differential.

- side: Surround speaker volume is reduced.
- + side: Surround speaker volume is increased.

NOTE:

This switch does not function when the surround switches are OFF.

BALANCE switches

Use to adjust the sound volume balance between left and right speakers.

- LEFT: Press to decrease the sound on the right side.
- RIGHT: Press to decrease the sound on the left side.

NOTE:

The left-right sound volume balance cannot be adjusted independently on front and surround speakers.

FM ANT A (NORM)/B (CATV) selector switch

Set to the A mode when using a connected FM antenna to listen to non-cable FM broadcasts. Set to the B (CATV) mode when a CATV cable is attached for listening to CATV (cable) FM broadcasts. The B (CATV) mode is in effect when the B (CATV) indicator lights. The initial mode will be memorized in the STATION CALL switch.

In this way, by performing PRESET TUNING, you can tune into an FM on-air station and a CATV station.

FM MODE AUTO/MONO selector switch

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MODE MONO indicator is lighted.

Auto stereo mode:

Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.

Monaural mode:

When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:

This switch has no effect on reception of AM broadcasts.

STATION FREQ/NAME (frequency/call-letter) selector switch

Use to select either the station call-letter mode or station frequency mode. The respective modes are shown on the display panel.

Station call-letter mode:

Displays the four-character station call-letters optionally selected (only when preset tuning mode is used).

Station frequency mode:

Displays the broadcasting station frequency.

TV ANT (VIDEO/TV) selector switch

This switch can be used in place of the TV ANT switch on the RF Modulator JA-RF5 (sold separately). This is effective only when the JA-RF5's TV ANT switch is set to the VIDEO position. For example:

In VIDEO mode (TV indicator goes out):

Allows you to use video components connected to the receiver.

In TV mode (TV indicator lights):

Connects the TV antenna, thus allowing you to view normal TV broadcasts, regardless of whether the receiver's POWER is ON or OFF.

NOTE:

- When in the VIDEO mode, no sound will be produced from the TV set's speakers. Listen using the speakers connected to the receiver.
- Noise may be produced if the TV set's volume control is turned up. Turn down the set's volume control when listening.
- This switch functions only when the TV ANT selector switch on the RF Modulator is set to "VIDEO".

STATION CALL RANDOM 20 CH switches

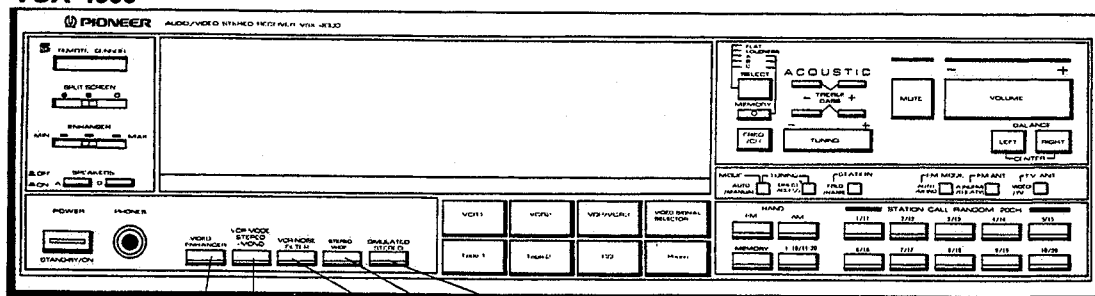
These switches are used to preset and recall desired broadcasting stations, together with the antenna A/B mode, FM AUTO/MONO mode; they are also used when performing direct access tuning.

FRONT PANEL FACILITIES

Only portions which differ significantly from the VSX-5000 are described. The description of other portions is the same as that of the VSX-5000, hence they are omitted.

Refer to the description of the VSX-5000 from Page 12. Note, however, that portions marked "VSX-5000 only" are not in the VSX-4000.

VSX-4000



VCR MODE STEREO/MONO selector switch *

MONO: All playback, including stereo signals, are produced in monaural.

When the MODE MONO indicator lights, the unit is set to the MONO mode.

NOTE:

This switch can be used when one of the video system function switches is selected. In addition, This switch can be preset for either of VCR 1, VCR 2, or VDP/VCR 3. When any other function switch is pressed, the MONO mode is automatically canceled.

VIDEO ENHANCER switch *

Press when performing video copying with added video enhancer effects. When the switch is pressed, the monitored video image will be the split screen picture.

SIMULATED STEREO switch *

Press to produce a simulated stereo effect when listening to monaural sources (for example normal AM or TV broadcasts). By pressing this switch, "S/STEREO" appears on the display panel.

NOTE:

- In the case of the VSX-4000, S/S + S/W will be displayed when SIMULATED STEREO and STEREO WIDE go ON simultaneously.

STEREO WIDE switch (VSX-4000 only) *

Press to add an extra sense of breadth to stereo sources.

When surround speakers are connected, the surround effect is produced.

By pressing this switch, "S/WIDE" will appear on the display panel.

VCR NOISE FILTER switch *

If tape hiss noise is noticeable when performing playback of video cassette tapes, press this switch to reduce the noise.

By pressing this switch, "N FILTER" will appear on the display panel.

NOTE:

- This switch can be used when one of the video system function switches is selected. In addition, this switch can be preset for either of VCR 1, VCR 2, or VDP/VCR 3. When any other audio function switch is pressed, the noise filter is automatically canceled.*
- The effectiveness in reducing high-frequency hiss noise varies depending on the type of tape used, the recording level, and other conditions.*

REMOTE CONTROL UNIT OPERATION

In addition to the present unit, the remote control unit can also be used to operate other Pioneer components (TV, VCR, VDP or CD) bearing the  mark.

SLEEP key

Press to enable the sleep timer function. Each time you press the key, the timer function becomes 60 minutes, 30 minutes, or OFF, in that sequence.

When the SLEEP display is fully lit, this means 60 minutes, when it is half lit, this means 30 minutes, and when it is out, this means OFF.

RECEIVER power stand-by/on key

Audio/Video Function keys

MUTE key

SURROUND MODE key

FM/AM selector keys

TV keys

VDP ... Sets the TV set function to VDP.
TV ... Sets the TV set function to TV.
- ... Reduces the TV set's sound volume.
+ ... Increases the TV set's sound volume.

PHONO keys

▶ (PLAY) ... To begin record playback.
■ (STOP) ... To stop record playback.

SURROUND MODE key

[When controlling the VSX-5000]

Selects the surround mode. Each time the key is pressed, the function is switched in the following order:

STUDIO → STADIUM → DOLBY SURROUND → OFF

[When controlling the VSX-4000]

Selects the SURROUND mode. Each time the key is pressed, the function is switched in the following order:

SIMULATED STEREO → STEREO WIDE → SIMULATED STEREO & STEREO WIDE → OFF

VCR power key

Use to turn power ON/OFF to a VCR.

A/V selector switch

TV power key

Use to turn power ON/OFF to a TV.

VIDEO SELECTOR key

SURROUND VOLUME key

(functions only with the VSX-5000)

BALANCE key

MASTER VOLUME key

TUNER CH key

(When the A/V selector is "A")

The station which is memorized in the STATION CALL switch will be received.

+: By pressing this switch, the channel number of the STATION CALL switch will increase.

-: By pressing this switch, the channel number of the STATION CALL switch will decrease.

NOTE:

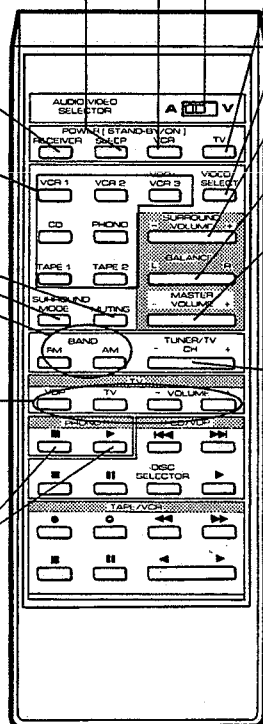
Unless the FM or AM function is selected using the BAND selector keys, you cannot receive a broadcast.

TV CH key

(When the A/V selector is "V")

+: Selects channels in ascending order.

-: Selects channels in descending order.



REMOTE CONTROL UNIT OPERATION

CD keys (When the A/V selector is "A")

►► (Track search) ... When pressed once, play advances to the beginning of the next track; when pressed continuously, advances to further tracks.

◄◄ (Track search) ... When pressed once, play returns to the beginning of the currently playing track; when pressed continuously, returns to earlier tracks.

► (Play) ... Begins playback.

DISC SELECTOR ... Used to disc number (1-6) for playback.

■ (Pause) ... Press to temporarily pause playback.

■ (Stop) ... Press to stop playback.

TAPE keys (When the A/V selector is "A")

►► (FF) ... Winds the tape quickly from left to right.

◄◄ (REW) ... Winds the tape quickly from right to left.

⊙ (Mute) ... Press to eliminate unwanted portions during recording, or to create a non-recorded interval between selections.

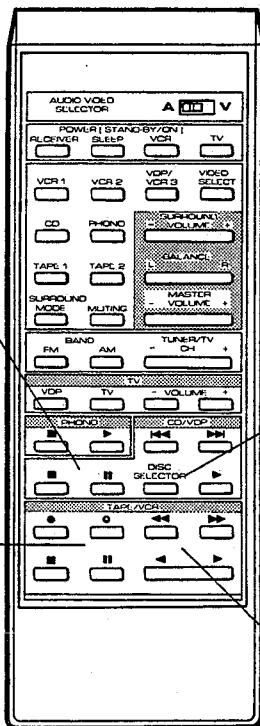
● (REC) ... Press to begin recording.

► (Play) ... Press for forward-direction recording or playback.

◄ (Play) ... Press for reverse-direction recording or playback.

■ (Pause) ... Press to temporarily pause recording or playback.

■ (Stop) ... Press to stop tape travel and recording.



VDP (LaserVision player) keys

(When the A/V selector is "V")

►► (Scan) ... Scanning in forward direction

◄◄ (Scan) ... Scanning in reverse direction

► (Play) ... Switches the mode from stop (disc not rotating) to normal playback.

Returns the mode from pause, still-frame, or multi-speed playback to normal playback. Starts chapter program playback.

■ (Pause) ... When pressed, picture and sound vanish and playback is temporarily interrupted. Press again to release the pause mode.

■ (Stop) ... Stops playback.

NOTE:

In the case of the VDP, the ◄◄ and ►► symbols mean manual fast feed. You cannot perform a chapter search.

VCR keys

(When the A/V selector is "V")

►► (FF) ... Advances the tape quickly.

◄◄ (REW) ... Rewinds the tape quickly.

● (REC) ... Begins recording.

► (Play) ... Begins playback.

■ (Pause) ... Temporarily interrupts playback or recording.

■ (Stop) ... Stops tape travel and recording.

NOTE:

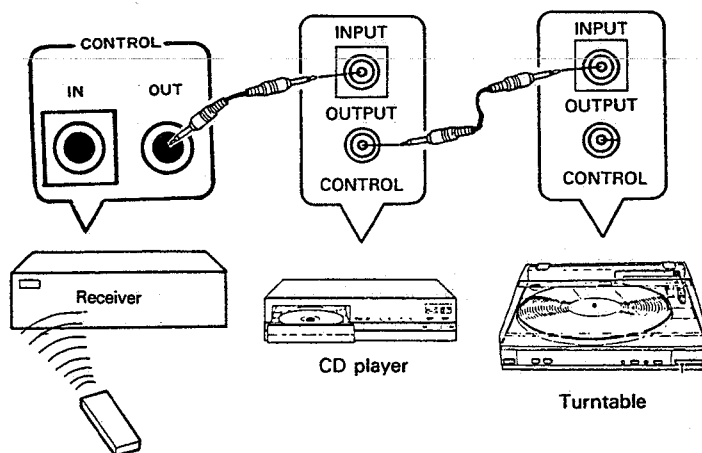
The ⊙ and ◄ keys do not function with VCR.

To control equipment other than this unit using the remote control unit provided—

- ① Pioneer equipment bearing the mark which is provided with a remote sensor can be operated by aiming this remote control unit at the remote sensor.
- ② When using equipment which bears the mark but is not provided with a remote sensor, or when you wish to operate only the receiver by aiming the remote control unit at the remote sensor of the receiver, it is necessary to connect the receiver to the REMOTE CONTROL IN/OUT jack. Connect the receiver using a commercially available mini-plug type cord.

Connections for remote control

By connecting PIONEER stereo components to each other using the control input (CONTROL IN) jack on each component, the entire system can be operated by a remote control unit. Use the remote control cord which comes with the respective unit for the connection. An example is shown in the drawing below. So long as you connect "OUT" → "IN", the connecting sequence is arbitrary. In the case of a unit which has only an "IN" connector, however, make connection to it last.

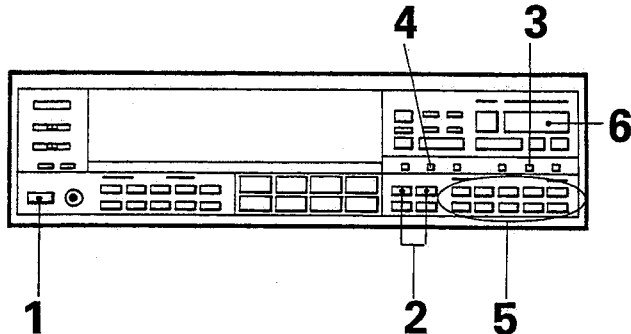


Even when using these connections, if a remote control unit is provided with your stereo equipment, you can operate the remote control unit by facing it towards the remote control sensor on the receiver.

PREPARATIONS FOR BROADCAST RECEPTION

The following illustrations are all for the VSX-5000, however the method of using the VSX-4000 is identical.

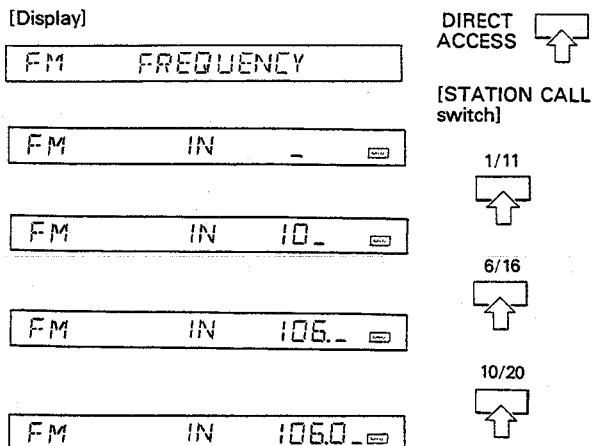
DIRECT ACCESS TUNING



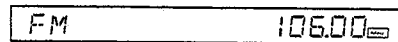
When you know the frequency of the desired station, the frequency can be input directly using the STATION CALL (number) switches in the following way:

- 1** Press the POWER switch to the ON position.
- 2** Select either FM or AM using the Band Selector.
- 3** When listening to FM broadcasts, use the FM ANT switch to select the type of broadcast.
 - To receive CATV FM broadcasts, press the switch so that the B (CATV) indicator lights.
 - This switch has no effect on the reception of AM broadcasts.
- 4** Press the DIRECT ACCESS switch.
- 5** Input the desired station frequency using the STATION CALL switches.

Example 1: To receive FM 106.00 MHz



- When the CHANNEL STEP switch is set to FM 100 kHz, the tuning operation is completed and reception begins.



- When the CHANNEL STEP switch is set to FM 50 kHz: After completing input of the station frequency, the receiver detects whether the input frequency is within receivable frequency range; if it is within this range, the characters "IN" disappear, and reception begins.

- 6** Adjust the sound volume and tone as desired.

To cancel input:

- During the about ten seconds that the "IN" indicator is lighted, do not press any of the STATION CALL switches (1—10[0]).
- During the time the "IN" indicator is lighted, press the DIRECT ACCESS switch.

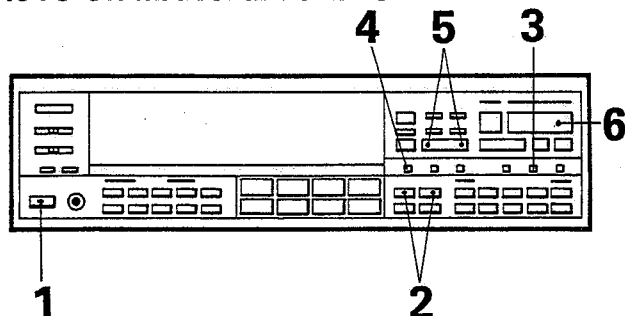
Notes regarding FM or AM direct access tuning

- When the CHANNEL STEP switch is set to the AM 10 kHz position, there is no need to input the last digit "0" of the desired station frequency. Depending on the station frequency, inputting the first two or three digits is sufficient.

If you input the incorrect frequency:

- When frequency numbers are input, the receiver judges whether the first digit input is correct; incorrect inputs will not be accepted. Acceptable first digit inputs:
FM: 1, 8, 9, AM: 1, 5, 6, 7, 8, 9
- If a frequency outside the receiver's range (FM 87.5 MHz—108 MHz; AM 530 kHz—1,600 kHz or 531 kHz—1,602 kHz) is input, the display will indicate "ERROR," and reception will return to the frequency received previously to the input.

AUTO OR MANUAL TUNING



AUTO tuning:

Auto tuning is convenient when you do not remember the frequency of a desired station, or when you wish to find stations that you do not normally listen to.

MANUAL tuning:

This is the "normal" tuning mode. Each time the TUNING switch "+" or "-" is pressed, the tuning frequency changes by one step, allowing you to find stations manually.

- 1** Press the POWER switch to the ON position.
- 2** Use the BAND selector to choose either FM or AM.
- 3** When listening to FM broadcasts, use the FM ANT switch to select the reception mode.
 - To receive CATV (cable) FM broadcasts, press the switch so that the B (CATV) indicator lights.
 - This switch has no effect on AM reception.

For AUTO Tuning:

- 4** Set the AUTO/MANUAL switch to the auto tuning mode.
 - In the Auto Tuning mode, the TUNING AUTO indicator will light. The word "AUTO" will appear on the display panel for several seconds.
- 5** Press the "+" or "-" side of the TUNING switch.
 - By pressing the "+" side, scanning will take place in the direction of increasing frequency. By pressing the (-) side, scanning will take place in the direction of decreasing frequency.
 - When a station is received, scanning will stop. If you wish to receive a different station, press the TUNING switch ("+" or "-") again.

For Manual Tuning:

- 4** Set the AUTO/MANUAL switch to the manual tuning mode.
 - When in the Manual Tuning mode, the TUNING AUTO indicator will go out. The word "MANU" will appear on the display panel for several seconds.
- 5** Press the "+" or "-" side of the TUNING switch as necessary to set to the frequency of the desired station.

Each time the switch is pressed, the tuning frequency will change by one step in the direction corresponding to the side pressed. When pressed continuously, the reception frequency will also change continuously.

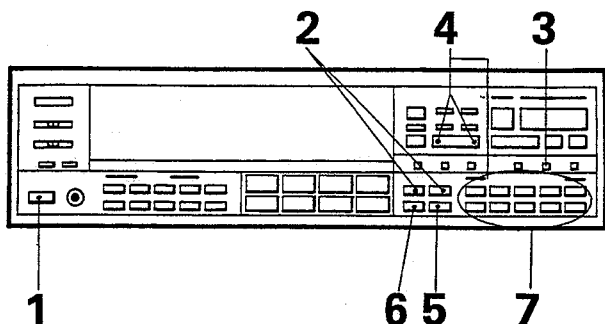
 - When a station is received, the TUNED indicator will light.
 - When the received station is broadcasting a program in FM stereo, the STEREO indicator will light.
- 6** Adjust the sound volume and tone as desired.

NOTE:

- When Auto Tuning is used, correct reception may not be possible for very distant stations or stations with very weak signals. In this event, Manual Tuning is recommended.
- The TUNED indicator may not light with broadcasts received over long distances, or when the broadcast signals are extremely weak.

PRESET TUNING

FREQUENCY PRESETTING

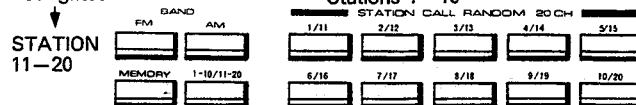


- 1** Press the POWER switch to the ON position.
- 2** Set the BAND selector to either FM or AM.
- 3** When listening to FM broadcasts, set the FM ANT switch to the desired mode.
 - When receiving cable FM ANT broadcasts, press the switch so that the B (CATV) indicator lights.
 - This switch has no effect on AM broadcasts.
- 4** Tune in the desired station.
 - See the section "DIRECT ACCESS TUNING" for information on reception using the Direct Access Tuning mode.
 - See the section "AUTO TUNING" for information on reception using the Auto Tuning mode.
 - See the section "MANUAL TUNING" for information on reception using the Manual Tuning mode.

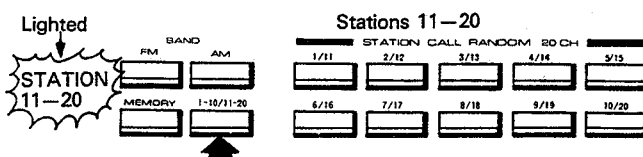
When memorizing an FM station, either press the FM MODE selector switch to forcibly memorize the station in the monaural mode, or memorize the station in the auto stereo mode (with FM MODE selector switch) left in the OFF position. Also, the FM ANT mode will likewise be memorized.

- 5** Press the STATION (1-10/11-20) selector switch to select STATION 1-10 or STATION 11-20.

When presetting using Mode 1 STATION CALL switches



When presetting using Mode 2 STATION CALL switches



- 6** Press the MEMORY switch.

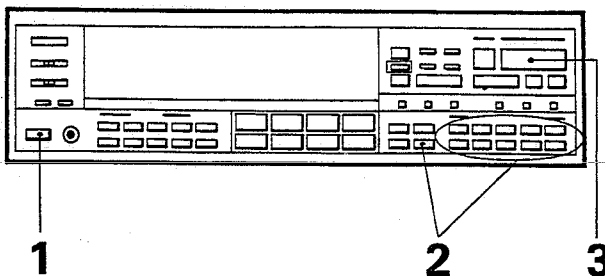
The word "MEMO" will appear on the display panel.

- 7** Press the STATION CALL switch into which you wish to preset the station.

- 8** Repeat steps 2 to 8 to preset stations into the remaining switches 1 through 20.

Up to a total of 20 AM and FM stations may be preset. If you mistakenly preset a STATION CALL switch into which a station has already been memorized, the former station information will be erased and the new station will be memorized in its place.

LISTENING TO BROADCASTS USING PRESET TUNING



- 1** Press the POWER switch to the ON position.
- 2** Press the STATION CALL switch into which the desired station has been preset. (When necessary, do not neglect to perform Station Mode selection as well.)

Tuning can be performed simply and accurately by following the above procedures.

- 3** Adjust the sound volume and tone as desired.

NOTE:

If a preset station has been erased, reset it using the above procedures.

Last station memory

When the POWER switch is pressed to turn power on, the last station received before the power was previously turned off will be received again.

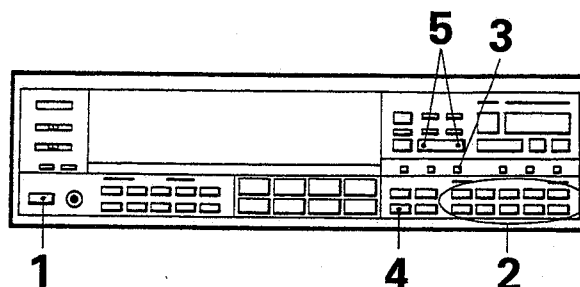
When the power is ON, if one of the BAND selector switches is pressed, the last station received before the BAND selector switch was previously pressed will be received again.

DISPLAYING STATION CALL-LETTER

When desired, you may memorize an optional name or station call-letter and display them in place of the station frequency. In this case, use the call-letter mode.

Memorizing with the call-letter mode.

- A maximum of four characters can be memorized.



1 Press the POWER switch to the ON position.

2 Tune in the desired station using the STATION CALL switches.

- Confirm that the "CH" display is lighted.

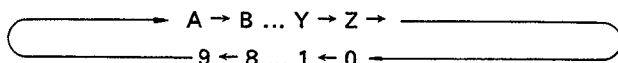
3 Press the STATION FREQ/NAME switch to put the unit in the call-letter mode.

4 Press the MEMORY switch.

- A message requesting an input will be displayed.
- Perform the following operation while the letter "A" is flashing (about 10 seconds). Once the flashing stops, an input cannot be made. Press the MEMORY switch once again.

5 Press the TUNING switch to select the desired characters.

- When the "+" side of the TUNING switch is pressed, the characters will change in order in the direction of the arrow. When the "-" side is pressed, the characters will change in reverse direction of the arrow.



NOTE:

To memorize a space instead of a character, select the " " (underline) display.

6 Press the MEMORY switch.

- In this way, the first character selected will be memorized and the operation will move to the next character. In this case, the same character as that previously set will be displayed flashing.

7 By repeating steps 4, 5 and 6 up to four characters can be memorized.

- Station call letters can be memorized for each of the stations preset in STATION CALL switches 1—20.

NOTE:

If the FUNCTION switches or STATION CALL switches are pressed, the setting procedure will be interrupted and setting will no longer be possible.

Example: To set the name "JAZZ" into STATION CALL switch CH 19.

Select CH 19

2 → FM 19 CH 98.00 "CH" will light

When no station name has been previously memorized

3 → FM 19 ----

(When a station name has been previously memorized)

FM 19 ROCK

Start: After about one second (once started, "A" will appear)

4 → FM 19 STATION

FM 19 IN A---

When "J" appears, release your finger from the TUNING switch.

5 → FM 19 IN J---

When one character is set.

FM 19 IN J---

6 → FM 19 IN JA--

7 Repeat the operation for the other characters.

TUNING "-" side FM 19 IN JAZ-

MEMORY FM 19 IN JAZ-

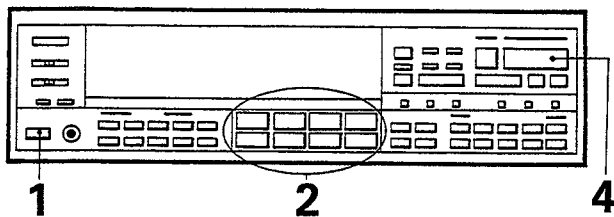
TUNING "+" side FM 19 IN JAZZ

MEMORY FM 19 IN JAZZ

MEMORY FM 19 IN JAZZ

If all four characters are not set and the "IN" characters disappear, the new name will not be memorized. When there are no characters to input, use the space.

TO LISTEN TO OTHER MUSIC SOURCES



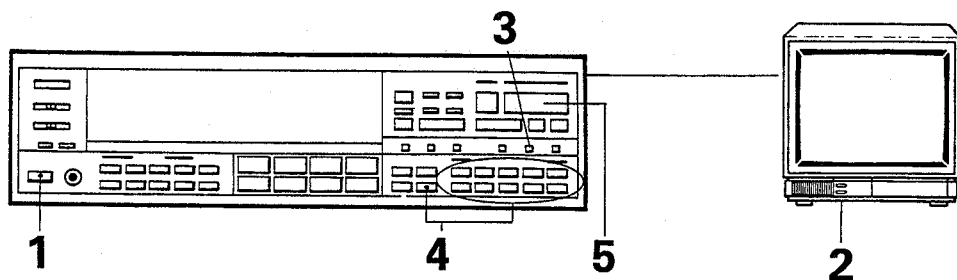
- 1** Press the POWER switch to the ON position, and turn on the power to the other audio components you wish to use.
- 2** Use the audio/video function switches as required to select the desired program source.

Program Source	Audio/video function switch
To listen to records	PHONO
To listen to compact discs	CD
To listen to a tape on the tape deck connected to TAPE 1 jacks	TAPE 1 (TAPE 2 set to OFF)
To listen to a tape on the tape deck connected to TAPE 2 jacks.	TAPE 2 (TAPE 1 set to OFF).
To watch a video cassette tape on the VCR connected to VCR 1 jacks	VCR 1
To watch a video cassette tape on the VCR connected to VCR 2 jacks	VCR 2
To watch a video disc on a video disc player.	VDP/VCR 3
To watch a video cassette tape on the VCR connected to VDP/VCR 3 jacks.	VDP/VCR 3

*Before selecting an audio/video function switch, turn TAPE 1 and TAPE 2 OFF.

- 3** Operate the appropriate audio/video component to play back the program source.
- 4** Adjust the sound volume and tone as desired.

RECEIVING FM SIMULCAST TV PROGRAMS



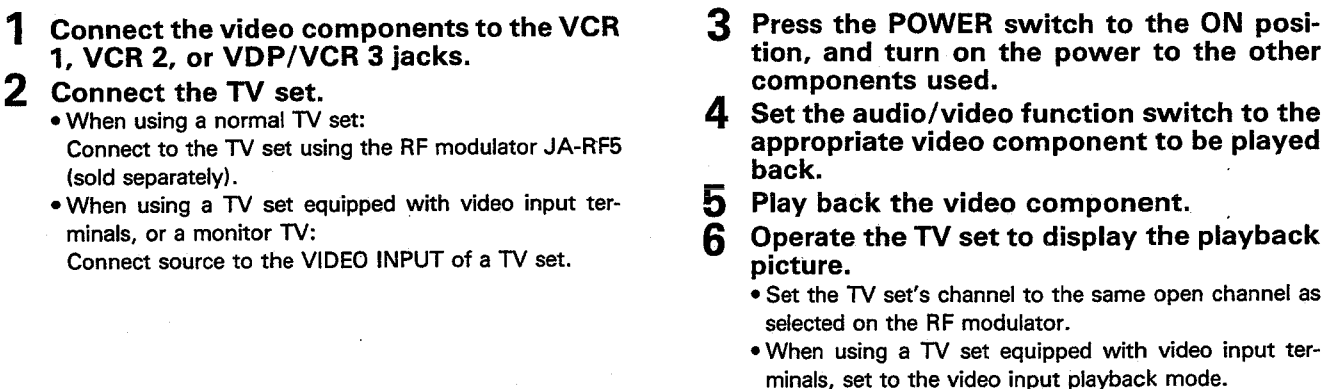
By combining a TV set and a VCR (or TV tuner), you can receive FM simulcast TV programs (stereo TV sound transmitted from an FM radio station) while viewing the TV program.

- 1** Press the POWER switch to the ON position, and turn on the power to the other components to be used.
- 2** Select the desired TV program with the TV set.
- 3** Set the FM ANT selector switch to the A (NORM) mode.
- 4** Tune in the desired FM simulcast TV program on the receiver.
- 5** Adjust the sound volume and tone as desired.

By connecting an FM CATV cable to the receiver, FM simulcast cable TV programs can be received.

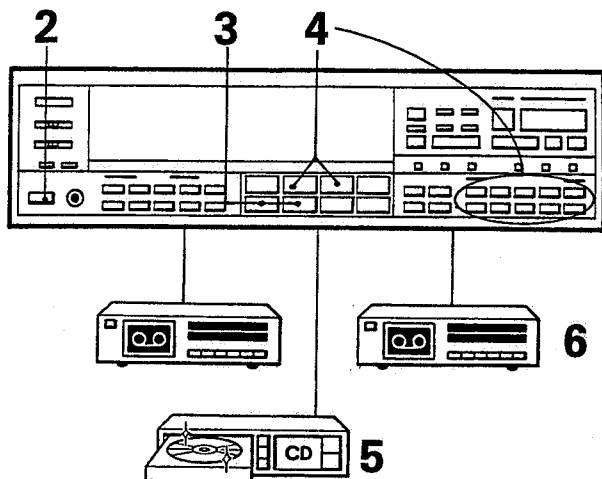
- 1** Press the POWER switch to the ON position, and turn on the power to the components to be used.
- 2** Select the desired CATV program with the TV set.
- 3** Set the FM ANT selector switch to the B (CATV) mode.
- 4** Tune in the FM simulcast cable TV program on the receiver.
- 5** Adjust the sound volume and tone as desired.

1000



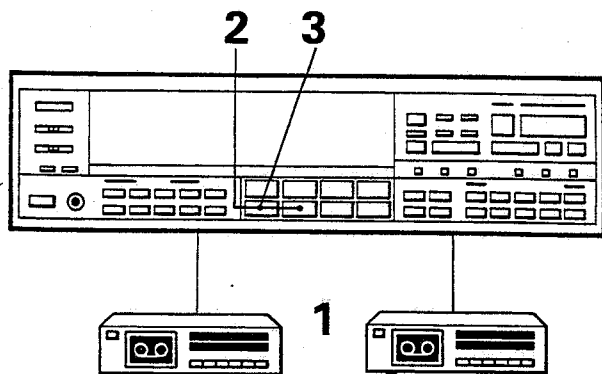
TO PERFORM RECORDING WITH A TAPE DECK

RECORDING



- 1 Connect the audio source component while referring to the sections "AUDIO SYSTEM CONNECTIONS" and "VIDEO SYSTEM CONNECTIONS."
- 2 Press the POWER switch to the ON position.
- 3 If the TAPE 1 or TAPE 2 switches are ON, press to turn OFF.
- 4 Use the audio/video function switch to select the desired program source.
 - To select a radio tuner program, press the desired STATION CALL switch if the station has been preset. If the desired station has not been preset, tune in the station using Auto, Manual or Direct Access tuning.
- 5 Play the desired program source (record, compact disc, etc.).
- 6 Begin recording by following the operating procedures for the applicable tape deck.
 - The volume, balance and tone controls have no effect on the recording.

COPYING TAPES



The following operation is an example of TAPE 1 → TAPE 2 copying. TAPE 2 → TAPE 1 copying can also be performed.

- 1 Connect the tape deck to be used for playback to the TAPE 1 jacks, and the tape deck for recording to the TAPE 2 jacks.
- 2 If the TAPE 1 or TAPE 2 switch is ON, press to turn OFF.
- 3 Press the TAPE 1 switch.
 - Set the playback deck to the playback mode and simultaneously set the recording deck to the recording mode.
 - If the recording tape deck is equipped with a monitoring function, the recording can be monitored by pressing the TAPE 2 switch.

Tape monitoring

When recording is performed on a tape deck equipped with three heads, the recorded sound can be monitored through the speaker systems by pressing the TAPE 1 or TAPE 2 switch, depending on which TAPE jacks the tape deck is connected to. In this case, both recording and playback connections must be made.

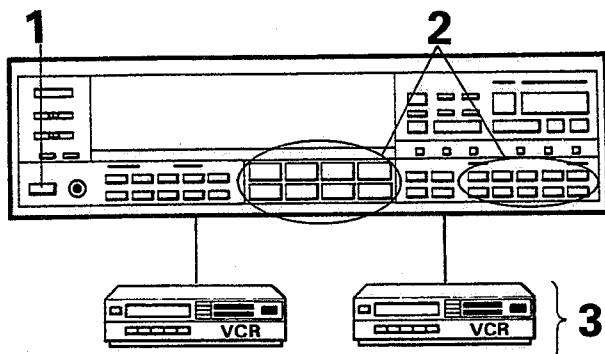
NOTE:

If a two-head open-reel or cassette deck is used, monitoring of the recorded sound will not be possible, even if the TAPE 1 or TAPE 2 switch is pressed. It will still be possible, however to listen to the original program source sound.

Hi-Fi VIDEO RECORDING

Refer to the connection procedures on pages 10 and 11, and refer to the Hi-Fi VCR's Operating Instructions regarding proper operation procedures. Recording can be performed on both VCR 1 and VCR 2.

RECORDING SOUND ON A VIDEO TAPE



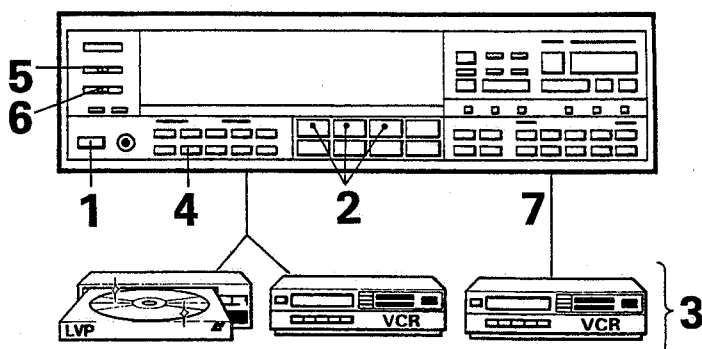
- 1** Press the **POWER** switch to the **ON** position, and turn on the power to the Hi-Fi VCR.
- 2** Use the audio/video function switch to select the desired program source.
 - To choose a radio tuner program source, press the desired **STATION CALL** switch if the station has been preset. If the desired station has not been preset, tune in the station using **Auto**, **Manual** or **Direct Access** tuning.
- 3** Insert a video cassette for recording into the Hi-Fi VCR and adjust the recording level.

For details, consult the Operating Instructions for the Hi-Fi VCR used.
- 4** Start the program source and set the VCR to the recording mode.
 - The volume, balance, and tone controls have no effect on the recording.

NOTE:

Recording cannot be performed on a VCR connected to the VDP/VCR 3 jacks.

VIDEO TAPE COPYING



Copying can be performed in either direction between VCR 1 and VCR 2. VCR 1 $\rightleftharpoons$ VCR 2

In addition, two identical copies can be performed from a program source connected to the VDP/VCR 3 jacks. VDP/VCR 3 $\rightarrow$ VCR 1, VCR 2

NOTE:

In this case, copying cannot be performed in the opposite direction (VCR 1, 2 to VDP/VCR 3).

- 1** Press the **POWER** switch to the **ON** position, and turn on the power to the connected VCR.
- 2** Set the audio/video function switch to the VCR to be used for playback.

- 3** Set the playback VCR to the playback mode.

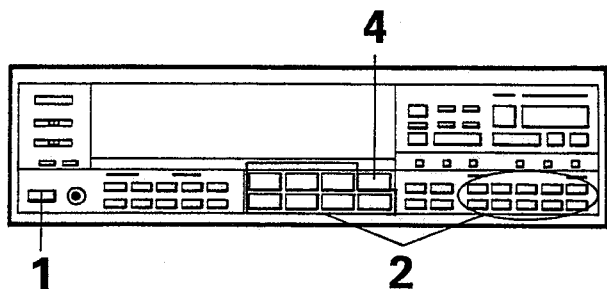
When not using the enhancer function:

- 4** Set the **VIDEO ENHANCER** switch to **OFF**.
 - The **ENHANCER** indicator will go out.
- 7** Set the recording VCR to the recording mode.

When using the enhancer function:

- 4** Set the **VIDEO ENHANCER** switch to **ON**.
 - The **VIDEO ENHANCER** indicator will light.
- 5** Set the **SPLIT SCREEN** control so that the line is near the middle of the screen.
- 6** Use the **ENHANCER** control to produce the clearest possible image when the copied video tape cassette is played back.
 - Perform the adjustment while comparing the original picture (on left of screen) and the enhanced image (on right of screen). Use the control with care since if too much enhancer effect is applied, a poorer image may result.
 - Adjust the image while using the **SPLIT SCREEN** control to divide the enhanced and original images at various places on the screen.
- 7** Set the recording VCR to the recording mode.

USING THE VIDEO SIGNAL SELECTOR



This function can be used to allow you to listen to the playback sound while changing the video image only, thus allowing you to playback and record video images different from the playback sound source. For example, you can use a Hi-Fi VCR to record an FM stereo CATV (audio) broadcast signal together with the CATV (video) broadcast.

- 1** Press the **POWER** switch to the **ON** position, and turn on the power to the other components used.
- 2** Set the audio/video function switch to the audio source which is to be recorded.
 - To select a radio tuner program source, press the desired **STATION CALL** switch if the station has been preset. If the desired station has not been preset, tune in the station using Auto or Manual tuning.

- 3** Insert a recording video cassette tape into the VCR to be used for recording.
- 4** Set the **VIDEO SIGNAL SELECTOR** switch to the video component (VCR1, VCR2 or VDP) used for playback.

NOTE (VSX-5000 only):

At this time, be sure to turn the VIDEO ADAPTOR switch OFF.

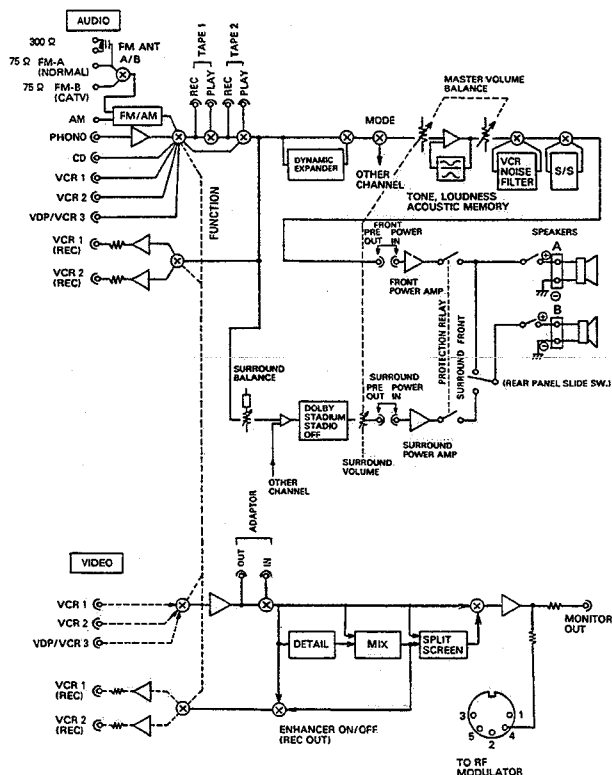
- 5** Set the recording VCR to the recording pause mode.
 - When using the **ENHANCER** function, see steps 4—6 of the section "VIDEO TAPE COPYING: When using the enhancer" function.
- 6** Start playing the desired audio program source.
- 7** Cancel the recording pause mode of the recording VCR.

CAUTION:

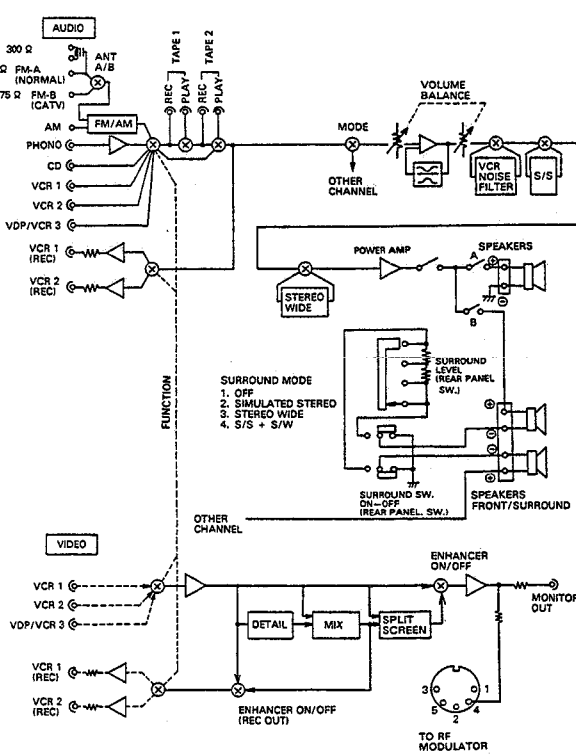
If the **VIDEO SIGNAL SELECTOR** switch is operated during recording, do so after setting the recording VCR to the pause mode. If the switch is operated when the tape is traveling during recording, the recorded image and sound may be disrupted at the point the switch is operated.

BLOCK DIAGRAM

[VSX-5000]



[VSX-4000]



HINTS FOR BETTER RECEPTION

EXTERNAL FM ANTENNA

The main advantage of FM over AM is the quality of the broadcast signal. In order to benefit fully from the high signal quality of FM broadcasts, it is recommended that a special-purpose FM antenna be installed. In weak signal areas, a multi-element (3-element, 5-element, 7-element) antenna should be used.

GROUNDING

Grounding is recommended if reception of FM programs is impaired by noise. To ground, connect a thick polyvinyl insulated wire to the GND terminal and attach the other end to a metal water pipe or grounding bar or wind it around a copper plate and bury it.

NOTE:

Never connect a wire to a gas pipe for grounding since sparks may ignite the gas.

EXTERNAL AM ANTENNA

If it is not possible to obtain adequate AM reception even by changing the orientation of the AM loop antenna, a separate indoor antenna, or an outdoor antenna should be installed.

INDOOR AM ANTENNA

Use a vinyl insulated wire (5 — 6 m) and connect one end to the AM antenna terminal and affix the other end to the wall or ceiling, as high as possible.

OUTDOOR AM ANTENNA

If reception quality is not improved sufficiently even when an indoor antenna is used, a vinyl insulated wire should be installed outside and fixed in place.

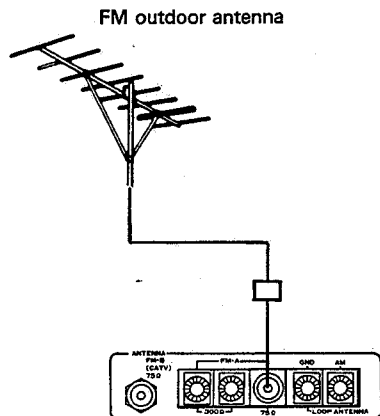
NOTE:

Do not detach the AM loop antenna when using an indoor or an outdoor AM antenna

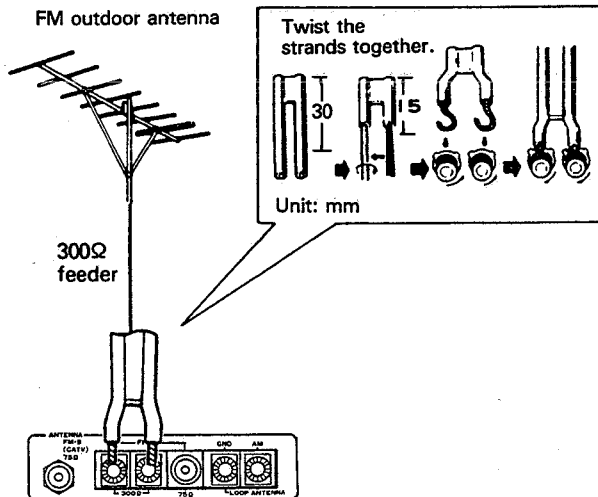
Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical".

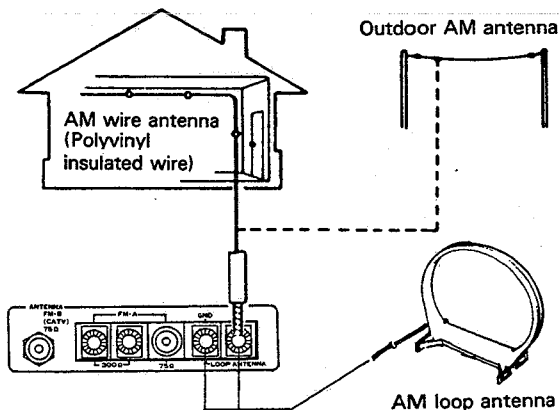
Connecting the coaxial cable



Connecting the 300 Ω feeder



AM antenna connection



TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
Power does not come on even when POWER switch is pressed.	Power cord is disconnected.	Connect cord securely.
No sound is produced, even when audio/video function switch is selected.	- Connections are incorrect. - The MUTE switch is pressed. - VOLUME switch is turned down.	- Consult page 8—11 and perform connections correctly. - Press the MUTE switch to cancel the MUTE effect. - Raise volume with VOLUME switch.
	Speaker connecting wires are disconnected from speaker terminals.	Connect wires to terminals securely.
	One or both of the input cords are disconnected.	Connect input cords securely.
	TAPE 1 or TAPE 2 switch is in the ON position.	Press the switch again to the OFF position.
	Connector bars are disconnected. (VSX-5000 only)	Connect bars securely.
	Stations memorized in the STATION CALL switches are erased.	Consult your Pioneer authorized service station.
No picture is produced, even when audio/video function switch is selected.	- Connections are incorrect. - The VIDEO SIGNAL SELECTOR is not set properly. - The VCR and the selected audio/video function switch are not correct.	- Consult page 8—11 and perform connections correctly. - Set correctly. - Press the correct switch.
	Station has not been tuned in to correct frequency.	Tune the station in correctly.
	Antenna has not been connected or has become disconnected.	Connect the antenna securely.
	FM reception Accessory T-type antenna remains bundled up or it is not pointing in right direction.	Stretch both ends of antenna taut and locate direction yielding optimum reception.
	Weak broadcasting station signals.	Replace accessory T-type antenna with outdoor FM antenna.
	AM reception AM loop antenna is not pointing in right direction.	Change the AM loop antenna's direction and find a position where reception is improved.
	Weak broadcasting station signals.	Erect outdoor AM antenna or connect ground wire.
High noise level	Noise being picked up from this unit and other equipment (especially electrical appliances using motor or fluorescent lights).	- Stop using appliances generating noise or remove them from vicinity of stereo equipment. - Separate the loop antenna from the unit by some distance.
	Input signals are not strong enough.	(FM) If the T-type antenna is being used, change to an outdoor antenna.
No auto stop	TV antenna is not connected to VCR, or connections are faulty.	Consult the VCR's operating instructions, and connect antenna correctly.
	You are attempting to watch a TV source using a VCR with copy system connections. In general, when copy system connections are made, the VCR's TV tuner function ceases to operate. For details, consult the operating instructions for your VCR.	Disconnect the copy system connection (TV tuner function will operate).
TV source can't be seen when the VCR's TV tuner is used.		
Video tape copies can't be made with the VCR.	Video tape copy connections haven't been made.	Look again closely at the section VIDEO SYSTEM CONNECTIONS on page 10, and connect correctly
Control was not possible regardless of what operation switch was pressed.	Static electricity affected the unit when the air was dry, such as in winter.	- Unplug the power cord of the unit from the AC wall outlet, then plug it in again. - If static electricity is pronounced, it is recommended that you operate the unit using the remote controller.

SPECIFICATIONS

VSX-5000:

Amplifier section

[POWER IN] STEREO MODE

Continuous average power output of 100 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.005% total harmonic distortion (stereo mode).

[POWER IN] SURROUND MODE

Continuous average power output of 70 watts* per channel, min., at 8 ohms, from 40 Hz to 20,000 Hz with no more than 0.005% total harmonic distortion (front); 10 watts* per channel, min., at 8 ohms, from 40 Hz to 15,000 Hz with no more than 0.3% total harmonic distortion (surround).

Continuous output power: 1 kHz, 0.3%, 8 Ω 18 W + 18 W
Input (sensitivity/impedance)

PHONO 2.5 mV/50 k Ω
CD, TAPE, VCR 1, VCR 2, VDP 150 mV/30 k Ω
POWER INPUT: FRONT 1 V/50 k Ω
POWER INPUT: SURROUND 150 mV/50 k Ω

Damping factor

1 kHz, 8 Ω 55

Phono overload level (T.H.D. 0.03% 1,000 Hz)

PHONO 140 mV

Cartridge load capacity/load resistance

PHONO 220 pF/50 k Ω

Frequency Response

PHONO, 20 Hz — 20 kHz ± 0.3 dB
CD, TAPE, VCR 1, VCR 2, VDP, 5 Hz — 100 kHz ± 3 dB

VDP IN $\rightarrow$ SURROUND OUT (at DOLBY SURROUND)

30 Hz — 7 kHz ± 3 dB

Output (level/impedance)

VCR REC, TAPE REC 150 mV/4.7 k Ω
PREAMP OUT: FRONT 1 V/470 Ω
PREAMP OUT: SURROUND 150 mV/470 Ω
L + R 1 V/4.7 k Ω

Tone control

BASS, 100 Hz ± 8 dB
TREBLE, 10 kHz ± 8 dB

VCR NOISE FILTER

50 Hz, 5 kHz: -6 dB/oct

Muting

..... - ∞

Loudness contour

..... + 6 dB (100 Hz),
..... + 3 dB (10 kHz)

Channel separation

PHONO 65 dB/1 kHz
CD, TAPE, VCR 1, VCR 2, VDP 65 dB/1 kHz

Signal to noise ratio (IHF, short circuited A network)

PHONO 83 dB
CD, TAPE, VCR 1, VCR 2, VDP 98 dB

Signal to noise ratio [EIA, at 1 W (1 kHz)]

PHONO 77 dB
CD, TAPE, VCR 1, VCR 2, VDP 79 dB

Distortion (SURROUND)

1 kHz, VDP IN $\rightarrow$ SURROUND OUT (at DOLBY SURROUND) 1%
SPEAKER OFF, A, B, A parallel B
Speaker impedance 4 — 16 Ω

VSX-4000:

Amplifier section

Continuous average power output is 60 watts* per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.007% total harmonic distortion.**

Damping factor

1 kHz, 8 Ω 45

Input (sensitivity/impedance)

PHONO 2.5 mV/50 k Ω
CD, TAPE, VCR 1, VCR 2, VDP 150 mV/30 k Ω
Phono overload level (T.H.D. 0.03% 1,000 Hz)

PHONO 140 mV

Cartridge load capacity/load resistance

PHONO 220 pF/50 k Ω

Frequency Response

PHONO, 20 Hz — 20 kHz ± 0.3 dB
CD, TAPE, VCR, VDP

5 Hz — 100 kHz ± 3 dB

Output (level/impedance)

VCR REC, TAPE REC 150 mV/4.7 k Ω

Tone control

BASS, 100 Hz ± 8 dB
TREBLE, 10 kHz ± 8 dB

VCR NOISE FILTER

50 Hz, 5 kHz: -6 dB/oct

Muting

..... -100 dB

Loudness contour

..... + 6 dB (100 Hz),
..... + 3 dB (10 kHz)

Channel separation

PHONO 65 dB/1 kHz
CD, TAPE, VCR 1, VCR 2, VDP 65 dB/1 kHz

Signal to noise ratio (IHF, short circuited A network)

PHONO 73 dB
CD, TAPE, VCR 1, VCR 2, VDP 98 dB

Signal to noise ratio [EIA, at 1 W (1 kHz)]

PHONO 76 dB
CD, TAPE, VCR 1, VCR 2, VDP 85 dB
SPEAKER OFF, A, B, A parallel B
Speaker impedance 4 — 16 Ω

*Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.

**Measured by Audio Spectrum Analyzer.

[VSX-5000/4000]**VIDEO Section**

Input (Level/Impedance)	
VCR 1, VCR 2, VDP/VCR 3, ADAPTOR	1 Vp-p/75 Ω
Output (Level/Impedance)	
VCR 1, VCR 2, ADAPTOR, MONITOR	1 Vp-p/75 Ω
Frequency Response	
VCR 1, VCR 2, VDP/VCR 3, ADAPTOR, MONITOR	5 Hz — 6 MHz (± 0.5 dB)
Signal to noise ratio	55 dB
Cross talk	55 dB (3.58 MHz)
Enhancer (DETAIL)	2 MHz ± 0.5 dB
A video adaptor is provided only on the VSX-5000. It is not provided on the VSX-4000.	

FM Tuner Section

Frequency range	87.5 MHz — 108 MHz
Usable sensitivity	Mono; 10.8 dBf, IHF (0.95 μ V/75 Ω)
50 dB Quieting sensitivity	
	Mono; 15.3 dBf, (1.6 μ V/75 Ω)
	Stereo; 37.1 dBf, (19.5 μ V/75 Ω)
Signal to noise Ratio	Mono; 80 dB (65 dBf)
	Stereo; 75 dB (85 dBf)
Distortion	Mono; 0.08% (100 Hz)
	0.08% (1 kHz)
	0.2% (6 kHz)
	Stereo; 0.2% (100 Hz)
	0.15% (1 kHz)
	0.3% (6 kHz)
Capture ratio	1 dB
Alternate channel selectivity	65 dB (400 kHz)
Stereo separation	50 dB (1 kHz)
	35 dB (30 Hz — 15 kHz)
Frequency response	30 Hz — 15 kHz (± 2.5 dB)
Image interference ratio	50 dB
IF interference ratio	80 dB
AM suppression ratio	55 dB
Spurious interference ratio	70 dB
Antenna input	
A	300 Ω BAL/75 Ω UNBAL F-type connector
B (CATV)	75 Ω UNBAL F-type connector

AM Tuner Section

Frequency range	
	When 10 kHz step: 530 kHz — 1,600 kHz
	When 9 kHz step: 531 kHz — 1,602 kHz
Sensitivity (IHF, Loop antenna)	300 μ V/m
Selectivity	20 dB
Signal to noise ratio	50 dB (100 dB μ V/m)
Image interference ratio	45 dB
IF interference ratio	70 dB
Antenna	Loop antenna

Miscellaneous

Power requirements	
U.S., Canadian models	AC 120 V, 60 Hz
Other destination models	AC 110/120/220/240 V (switchable), 50/60 Hz

[VSX-5000]

Power consumption	
U.S., Canadian models	380 W, 470 VA
Other destination models	380 W
In stand-by condition	5 W
AC Outlets	
SWITCHED x 2	TOTAL 300 W MAX
UNSWITCHED x 1	200 W MAX
Dimensions	420 (W) x 124 (H) x 381 (D) mm
	16-9/16 (W) x 4-3/4 (H) x 14-15/16 (D) in
Weight (without package)	10 kg (22 lb 1 oz)

[VSX-4000]

Power consumption	
U.S., Canadian models	240 W, 280 VA
Other destination models	240 W
In stand-by condition	5 W
AC outlets	
SWITCHED x 2	TOTAL 300 W MAX
UNSWITCHED x 1	200 W MAX
Dimensions	420(W) x 121(H) x 381(D) mm
	16-9/16(W) x 4-3/4(H) x 14-15/16(D) in
Weight (without package)	8.2 kg (18 lb 1 oz)

[VSX-5000/4000]**Furnished Parts**

FM T-type antenna	1
AM Loop antenna	1
Dry cell battery	2
Remote control unit	1
Operating instructions	1

NOTE:

Specifications and the design subject to possible modifications without notice due to improvements.

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